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TERMINAL (ENTER 1, 2, 3, OR ?):2

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* * * * * * * * * *
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                 Web Page for STN Seminar Schedule - N. America
NEWS
                 STN AnaVist, Version 1, to be discontinued
NEWS
      2
         APR 04
NEWS
                 WPIDS, WPINDEX, and WPIX enhanced with new
         APR 15
                 predefined hit display formats
NEWS 4 APR 28 EMBASE Controlled Term thesaurus enhanced
NEWS 5 APR 28 IMSRESEARCH reloaded with enhancements
NEWS 6 MAY 30 INPAFAMDB now available on STN for patent family
                 searching
                 DGENE, PCTGEN, and USGENE enhanced with new homology
NEWS 7 MAY 30
                 sequence search option
NEWS 8
         JUN 06
                 EPFULL enhanced with 260,000 English abstracts
NEWS 9
         JUN 06
                 KOREAPAT updated with 41,000 documents
NEWS 10
         JUN 13
                 USPATFULL and USPAT2 updated with 11-character
                 patent numbers for U.S. applications
NEWS 11
         JUN 19
                 CAS REGISTRY includes selected substances from
                 web-based collections
NEWS 12
         JUN 25 CA/CAplus and USPAT databases updated with IPC
                 reclassification data
NEWS 13
         JUN 30 AEROSPACE enhanced with more than 1 million U.S.
                 patent records
         JUN 30
                 EMBASE, EMBAL, and LEMBASE updated with additional
NEWS 14
                 options to display authors and affiliated
                 organizations
NEWS 15
         JUN 30 STN on the Web enhanced with new STN AnaVist
                 Assistant and BLAST plug-in
NEWS 16 JUN 30
                 STN AnaVist enhanced with database content from EPFULL
NEWS 17
         JUL 28 CA/CAplus patent coverage enhanced
NEWS 18 JUL 28 EPFULL enhanced with additional legal status
                 information from the epoline Register
NEWS 19
         JUL 28 IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS 20
         JUL 28 STN Viewer performance improved
NEWS 21
         AUG 01
                 INPADOCDB and INPAFAMDB coverage enhanced
NEWS 22 AUG 13 CA/CAplus enhanced with printed Chemical Abstracts
                 page images from 1967-1998
NEWS 23
         AUG 15 CAOLD to be discontinued on December 31, 2008
NEWS 24
         AUG 15
                 CAplus currency for Korean patents enhanced
NEWS 25
         AUG 25 CA/CAplus, CASREACT, and IFI and USPAT databases
                 enhanced for more flexible patent number searching
NEWS 26
         AUG 27
                 CAS definition of basic patents expanded to ensure
                 comprehensive access to substance and sequence
                 information
```

## AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FILE 'HOME' ENTERED AT 12:26:32 ON 10 SEP 2008

=> FIL REG

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 0.21 0.21

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http://www.cas.org/support/stngen/stndoc/properties.html

```
=> ACTIVATE KITA10584234/A
```

L1 STR

L2 825 SEA FILE=REGISTRY SSS FUL L1

=> ACTIVATE KI10584234/A

L3 STR

L4 ( 3163) SEA FILE=REGISTRY SSS FUL L3

L5 STR

L6 1721 SEA FILE=REGISTRY SUB=L4 SSS FUL L5

L3 HAS NO ANSWERS

L3 STR

Structure attributes must be viewed using STN Express query preparation.

=> D L5

L5 HAS NO ANSWERS

L5 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> D SCAN L6

L6 1721 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN

IN 1-Piperidinecarboxylic acid, 4-[[[2-methoxy-4'-(methylsulfonyl)[1,1'-biphenyl]-4-yl]oxy]methyl]-, 1-methylethyl ester

MF C24 H31 N O6 S

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>

Uploading C:\Program Files\STNEXP\Queries\10584234NN.str

chain nodes : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 28 35 36 44 45 46 50 51 53 ring nodes : 22 23 24 25 26 27 29 30 31 32 33 34 54 55 56 57 58 59 chain bonds : 2-3 2-4 5-6 5-7 8-9 8-10 8-11 12-13 12-14 12-15 16-17 16-18 18-19 20-2120-22 30-36 31-53 32-35 33-54 35-50 36-51 44-45 44-46 ring bonds :  $22 - 23 \quad 22 - 27 \quad 23 - 24 \quad 24 - 25 \quad 25 - 26 \quad 26 - 27 \quad 29 - 30 \quad 29 - 34 \quad 30 - 31 \quad 31 - 32 \quad 32 - 33 \quad 33 - 34 \quad 20 - 31 \quad 30 - 31 \quad 30 - 31 \quad 30 - 31 \quad 30 - 30 \quad 30 - 31 \quad 30 - 30 \quad 30 - 31 \quad 30 - 30 \quad 30 -$ 54-55 54-59 55-56 56-57 57-58 58-59 exact/norm bonds :  $2-3 \quad 2-4 \quad 5-6 \quad 5-7 \quad 8-9 \quad 8-10 \quad 8-11 \quad 12-13 \quad 12-14 \quad 12-15 \quad 16-17 \quad 16-18 \quad 18-19 \quad 20-21$ 30-36 32-35 35-50 36-51 44-45 44-46 exact bonds : 20-22 31-53 33-54 normalized bonds :  $22-23 \quad 22-27 \quad 23-24 \quad 24-25 \quad 25-26 \quad 26-27 \quad 29-30 \quad 29-34 \quad 30-31 \quad 31-32 \quad 32-33 \quad 33-34$ 54-55 54-59 55-56 56-57 57-58 58-59

G1: [\*1], [\*2], [\*3], [\*4], [\*5], [\*6], [\*7], [\*8], [\*9]

```
Match level:
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:CLASS
29:Atom 30:Atom
31:Atom 32:Atom 33:Atom 34:Atom 35:CLASS 36:CLASS 44:CLASS 45:CLASS 46:Atom 50:CLASS
51:CLASS 53:CLASS 54:Atom 55:Atom 56:Atom 57:Atom 58:Atom 59:Atom Generic attributes:
1:
Saturation : Unsaturated
```

=> D L7

L7 HAS NO ANSWERS

L7 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> S SSS SAM L7

SAMPLE SEARCH INITIATED 12:31:23 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 5070 TO ITERATE

39.4% PROCESSED 2000 ITERATIONS

25 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 97130 TO 105670 PROJECTED ANSWERS: 790 TO 1744

L8 25 SEA SSS SAM L7

=> D SCAN

L8 25 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN

IN 6,8-Isoquinolinediol, 1,2,3,4-tetrahydro-5-(4-hydroxy-5-methoxy-7-methyl-1-

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> S SSS SAM L7 SUBSET=L6

SAMPLE SUBSET SEARCH INITIATED 12:32:13 FILE 'REGISTRY'

SAMPLE SUBSET SCREEN SEARCH COMPLETED - 92 TO ITERATE

100.0% PROCESSED 92 ITERATIONS 18 ANSWERS

SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*

PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 1265 TO 2415

PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 106 TO 614

L9 18 SEA SUB=L6 SSS SAM L7

=> D SCAN

L9 18 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN

IN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-

dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N,N-dimethyl-

MF C23 H29 N O7

Absolute stereochemistry.

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> S SSS FULL L7 SUBSET=L6
FULL SUBSET SEARCH INITIATED 12:32:33 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED - 1721 TO ITERATE

100.0% PROCESSED 1721 ITERATIONS 368 ANSWERS

SEARCH TIME: 00.00.01

L10 368 SEA SUB=L6 SSS FUL L7

=> FIL CAPLU

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 46.70 46.91

FILE 'CAPLUS' ENTERED AT 12:32:48 ON 10 SEP 2008
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FILE COVERS 1907 - 10 Sep 2008 VOL 149 ISS 11 FILE LAST UPDATED: 9 Sep 2008 (20080909/ED)

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=> S L10

L11 160 L10

=> S L11 AND (AY<2003 OR PY<2003 OR PRY<2003)

NUMERIC VALUE NOT VALID '2003'

Numeric values may contain 1-8 significant figures. If range notation is used, both the beginning and the end of the range must be specified, e.g., '250-300/MW'. Expressions such as '250-/MW' are not allowed. To search for values above or below a given number, use the >, =>, <, or <= operators, e.g., 'MW => 250'. Text terms cannot be used in numeric expressions. If you specify a unit, it must be dimensionally correct for that field code. To see the unit designations for field codes in the current file, enter "DISPLAY UNIT ALL" at an arrow prompt (=>).

=> S L11 AND (AY<2003 OR PY<2003 OR PRY<2003)

NUMERIC VALUE NOT VALID '2003'

Numeric values may contain 1-8 significant figures. If range notation is used, both the beginning and the end of the range must be specified, e.g., '250-300/MW'. Expressions such as '250-/MW' are not allowed. To search for values above or below a given number, use the >, =>, <, or <= operators, e.g., 'MW => 250'. Text terms cannot be used in numeric expressions. If you specify a unit, it must be dimensionally correct for that field code. To see the unit designations for field codes in the current file, enter "DISPLAY UNIT ALL" at an arrow prompt (=>).

=> S 111 and (ay<2003 or py<2003 or pry<2003)

4496803 AY<2003

22958877 PY<2003

3965143 PRY<2003

L12 135 L11 AND (AY<2003 OR PY<2003 OR PRY<2003)

=> S 111 and (ay<2004 or py<2004 or pry<2004)

4785567 AY<2004

24009596 PY<2004

4256742 PRY<2004

L13 145 L11 AND (AY<2004 OR PY<2004 OR PRY<2004)

=> 113 and HSP

L13 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s 113 and HSP

23728 HSP

2831 HSPS

24314 HSP

(HSP OR HSPS)

L14 2 L13 AND HSP

=> fil stng

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY 26.36

SESSION 73.27

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Sep 5, 2008 (20080905/UP).

=> FIL REGISTRY

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 0.06 73.33

FILE 'REGISTRY' ENTERED AT 12:47:58 ON 10 SEP 2008
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http://www.cas.org/support/stngen/stndoc/properties.html

=> d his

(FILE 'HOME' ENTERED AT 12:26:32 ON 10 SEP 2008)

FILE 'REGISTRY' ENTERED AT 12:26:47 ON 10 SEP 2008 ACTIVATE KITA10584234/A

L1 STR L2 825 SEA FILE=REGISTRY SSS FUL L1

ACTIVATE KI10584234/A

-----

L3 STR

L4 ( 3163)SEA FILE=REGISTRY SSS FUL L3

L5 STR

L6 1721 SEA FILE=REGISTRY SUB=L4 SSS FUL L5

\_\_\_\_\_

L7 STRUCTURE UPLOADED

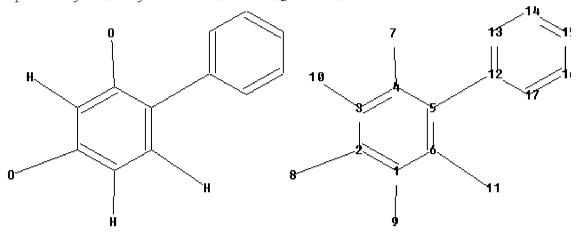
L8 25 S SSS SAM L7

L9 18 S SSS SAM L7 SUB=L6

L10 368 S SSS FULL L7 SUB=L6

=>

Uploading C:\Program Files\STNEXP\Queries\1058423400.str



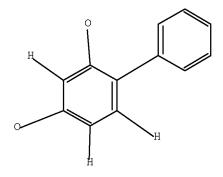
chain nodes :
7 8 9 10 11
ring nodes :
1 2 3 4 5 6 12 13 14 15 16 17
chain bonds :
1-9 2-8 3-10 4-7 5-12 6-11
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 12-13 12-17 13-14 14-15 15-16 16-17
exact/norm bonds :
2-8 4-7
exact bonds :
1-9 3-10 5-12 6-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 12-13 12-17 13-14 14-15 15-16 16-17

## Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom

## L15 STRUCTURE UPLOADED

=> d 115 L15 HAS NO ANSWERS L15 STR



Structure attributes must be viewed using STN Express query preparation.

=> s sss sam 115 subset=110 SAMPLE SUBSET SEARCH INITIATED 12:54:05 FILE 'REGISTRY' SAMPLE SUBSET SCREEN SEARCH COMPLETED - 18 TO ITERATE

100.0% PROCESSED 18 ITERATIONS 8 ANSWERS

SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 106 TO 614
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 8 TO 329

L16 8 SEA SUB=L10 SSS SAM L15

=> d scan

ALL ANSWERS HAVE BEEN SCANNED

=> s sss full 115 subset=110 FULL SUBSET SEARCH INITIATED 12:54:30 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 368 TO ITERATE

100.0% PROCESSED 368 ITERATIONS 145 ANSWERS

SEARCH TIME: 00.00.01

L17 145 SEA SUB=L10 SSS FUL L15

=> s 110 not 117

L18 223 L10 NOT L17

=> d scan

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> fil caplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
49.62
122.95

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=> s 118

L19 52 L18

=> S 119 and (ay<2004 or py<2004 or pry<2004)

4785567 AY<2004 24009596 PY<2004 4256742 PRY<2004

L20 47 L19 AND (AY<2004 OR PY<2004 OR PRY<2004)

=> d ibib abs hitstr 119

L19 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2008:122442 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 148:421710

TITLE: Secondary metabolites from Caesalpinia pluviosa
AUTHOR(S): Flores, Yonny; Vila, Jose; Almanza, Giovanna R.
CORPORATE SOURCE: Laboratorio de Productos Naturales, Instituto de
Investigaciones Quimicas, Carrera de Ciencias
Quimicas, Universidad Mayor de San Andres, La Paz,

Bolivia

SOURCE: Revista Boliviana de Quimica (2006), 23(1), 1-8

CODEN: RBQUDX; ISSN: 0250-5460

PUBLISHER: Universidad Mayor de San Andres, Facultad de Ciencias

Puras y Naturales

DOCUMENT TYPE: Journal LANGUAGE: English

AB Two phenolic compds., Et gallate and rhuschalcone VI, together with lupeol, betulinic acid and stigmasterol were isolated from the stem bark of Caesalpinia pluviosa D.C. Their structures were determined by spectroscopic means mainly by NMR expts., completing all the NMR assignments of phenolic compds. In addition, the exts. and pure compds. were evaluated against the bacteria Staphylococcus aureus, HPIA test and the antimalarial in vitro assay

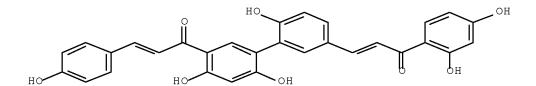
against Plasmodium falciparum, determining that CH2Cl2 extract and rhuschalcone VI showed good activity in the antibacterial and HPIA tests.

IT 541502-84-5P, Rhuschalcone VI

RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation) (secondary metabolites from Caesalpinia pluviosa)

RN 541502-84-5 CAPLUS

CN 2-Propen-1-one, 1-[5'-[(1E)-3-(2,4-dihydroxyphenyl)-3-oxo-1-propen-1-yl]-2',4,6-trihydroxy[1,1'-biphenyl]-3-yl]-3-(4-hydroxyphenyl)-, (2E)-(-)-(CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 119 2-52

L19 ANSWER 2 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2007:1319216 CAPLUS Full-text

DOCUMENT NUMBER: 148:144683

TITLE: 4,5-Diarylisoxazole Hsp90 Chaperone Inhibitors:

Potential Therapeutic Agents for the Treatment of

Cancer

AUTHOR(S): Brough, Paul A.; Aherne, Wynne; Barril, Xavier;

Borgognoni, Jennifer; Boxall, Kathy; Cansfield, Julie E.; Cheung, Kwai-Ming J.; Collins, Ian; Davies, Nicholas G. M.; Drysdale, Martin J.; Dymock, Brian; Eccles, Suzanne A.; Finch, Harry; Fink, Alexandra; Hayes, Angela; Howes, Robert; Hubbard, Roderick E.;

James, Karen; Jordan, Allan M.; Lockie, Andrea; Martins, Vanessa: Massey, Andrew: Matthews, Thom

Martins, Vanessa; Massey, Andrew; Matthews, Thomas P.; McDonald, Edward; Northfield, Christopher J.; Pearl, Laurence H.; Prodromou, Chrisostomos; Ray, Stuart; Raynaud, Florence I.; Roughley, Stephen D.; Sharp, Swee Y.; Surgenor, Allan; Walmsley, D. Lee; Webb,

Paul; Wood, Mike; Workman, Paul; Wright, Lisa

Vernalis Ltd., Cambridge, CB21 6GB, UK

Journal of Medicinal Chemistry (2008), 51(2), 196-218

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

CORPORATE SOURCE:

GΙ

SOURCE:

Ι

AΒ Inhibitors of the Hsp90 [heat shock protein 90] mol. chaperone show considerable promise as potential chemotherapeutic agents for cancer. structure-based design, synthesis, structure-activity relationships, and pharmacokinetics of potent small-mol. inhibitors of Hsp90 based on the 4,5diarylisoxazole scaffold were studied. Analogs from this series have high affinity for Hsp90, as measured in a fluorescence polarization competitive binding assay, and are active in cancer cell lines where they inhibit proliferation and exhibit a characteristic profile of depletion of oncogenic proteins and concomitant elevation of Hsp72. The [(morpholinomethyl)phenyl]isoxazolecarboxamide I (VER-52296/NVP-AUY922) is potent in the Hsp90 FP binding assay and inhibits proliferation of various human cancer cell lines in vitro, with GI50 averaging 9 nM. I is retained in tumors in vivo when administered i.p., as evaluated by cassette dosing in tumor-bearing mice. In a human colon cancer xenograft model, I inhibits tumor growth by .apprx.50%.

IT 1001386-05-5

RL: PAC (Pharmacological activity); BIOL (Biological study) (preparation of diphenylisoxazolecarboxamides and diphenylpyrazolecarboxamides as heat shock protein chaperone inhibitors and anticancer agents)

RN 1001386-05-5 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-[(ethylamino)methyl]phenyl]- (CA INDEX NAME)

IT 747412-71-1P 747413-82-7P 747413-88-3P 747413-92-9P 747413-98-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of diphenylisoxazolecarboxamides and diphenylpyrazolecarboxamides as heat shock protein chaperone inhibitors and anticancer agents)

RN 747412-71-1 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-

RN 747413-82-7 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-(1-piperidinylmethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

RN 747413-88-3 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-(1-piperidinylmethyl)phenyl]- (CA INDEX NAME)

RN 747413-92-9 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(2'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-(4-morpholinylmethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 747413-98-5 CAPLUS

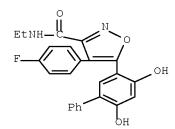
CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy-2'-methyl[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-(1-piperidinylmethyl)phenyl]- (CA INDEX NAME)

IT 747413-77-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of diphenylisoxazolecarboxamides and diphenylpyrazolecarboxamides as heat shock protein chaperone inhibitors and anticancer agents)

RN 747413-77-0 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl-4-(4-fluorophenyl)- (CA INDEX NAME)



REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2007:507527 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 146:501047

TITLE: Azole derivatives and related compounds as heat-shock

protein binders and inhibitors

INVENTOR(S): Bruncko, Milan; Elmore, Steven W.; Song, Xiaohong;

Madar, David J.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 19pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
US 20070105862 PRIORITY APPLN. INFO.:	A1	20070510	US 2006-593315 US 2005-735716P P	20061106 20051110		

OTHER SOURCE(S): MARPAT 146:501047

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$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

AB Compds. of formula I, II, and III which bind to and inhibit the activity of HSP90, compns. containing the compds. and methods of treating diseases that are caused or exacerbated by overexpression of HSP90 are disclosed. Compds. of formula I, II and III wherein A and B taken together to form benzene; C is CH and N; when D is CH2, CO, NH, O, S, SO, and SO2, E is HC2 and N; when D is CH2 and NH, E is CH2, CO, NH, O, S, SO, and SO2; F is (un)substituted (un)fused 2-hydroxyphenyl; and their therapeutically acceptable salts thereof. Compound IV can be prepared by a generic procedure. The compds. of the invention were evaluated for their heat-shock protein binding and inhibitory activities.

936217-67-3P 936217-71-9P 936217-72-0P ΤТ 936217-73-1P 936217-74-2P 936217-75-3P 936217-81-1P 936217-82-2P 936217-83-3P 936217-84-4P 936217-85-5P 936217-86-6P 936217-87-7P 936217-88-8P 936217-89-9P 936217-90-2P 936217-91-3P 936217-97-9P 936217-98-0P 936217-99-1P 936218-00-7P 936218-01-8P 936218-02-9P 936218-03-0P 936218-04-1P 936218-05-2P 936218-06-3P 936218-07-4P 936218-08-5P 936218-09-6P 936218-10-9P 936218-11-0P 936218-12-1P 936218-13-2P 936218-18-7P 936218-19-8P 936218-20-1P 936218-21-2P 936218-22-3P 936218-23-4P 936218-29-0P 936218-36-9P 936218-37-0P 936218-38-1P 936218-42-7P 936218-43-8P 936218-44-9P 936218-45-0P 936218-47-2P 936218-61-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of azole derivs. and related compds. as  ${\tt HSP90}$  binders and inhibitors useful in the treatment of diseases caused by or exacerbated by overexpression of  ${\tt HSP90}$ )

RN 936217-67-3 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

936217-71-9 CAPLUS

RN

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-(CA INDEX NAME)

RN 936217-72-0 CAPLUS

CN 2H-Benzimidazol-2-one, 1,3-dihydro-1-(2',4,6-trihydroxy[1,1'-biphenyl]-3-yl)- (CA INDEX NAME)

RN 936217-73-1 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4'-chloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936217-74-2 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2'-chloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936217-75-3 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3'-chloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936217-81-1 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2'-fluoro-4,6-dihydroxy-5'-methyl[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-82-2 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3'-chloro-4,6-dihydroxy-4'-methyl[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-83-3 CAPLUS

CN 2H-Benzimidazol-2-one, 1,3-dihydro-5-(trifluoromethyl)-1-[2',4,6-trihydroxy-5'-(1-methylethyl)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

RN 936217-84-4 CAPLUS

CN 2H-Benzimidazol-2-one, 1-[2'-fluoro-4,6-dihydroxy-5'- (trifluoromethyl)[1,1'-biphenyl]-3-yl]-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-85-5 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3'-fluoro-4,6-dihydroxy[1,1':4',1''-terphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-86-6 CAPLUS

CN 2H-Benzimidazol-2-one, 1-[4'-chloro-4,6-dihydroxy-3'- (trifluoromethyl)[1,1'-biphenyl]-3-yl]-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-87-7 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4'-benzoyl-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-88-8 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 5'-[2,3-dihydro-2-oxo-5-(trifluoromethyl)-1H-benzimidazol-1-yl]-N-(1,1-dimethylethyl)-2',4'-dihydroxy- (CA INDEX NAME)

RN 936217-89-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, N-cyclopentyl-5'-[2,3-dihydro-2-oxo-5-(trifluoromethyl)-1H-benzimidazol-1-yl]-2',4'-dihydroxy- (CA INDEX NAME)

RN 936217-90-2 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 5'-[2,3-dihydro-2-oxo-5-(trifluoromethyl)-1H-benzimidazol-1-yl]-N-ethyl-2',4'-dihydroxy- (CA INDEX NAME)

RN 936217-91-3 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, N-cyclohexyl-5'-[2,3-dihydro-2-oxo-5-(trifluoromethyl)-1H-benzimidazol-1-yl]-2',4'-dihydroxy- (CA INDEX NAME)

RN 936217-97-9 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4'-acetyl-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-98-0 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-2',3'-dimethyl[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936217-99-1 CAPLUS

CN 2H-Benzimidazol-2-one, 1-[4,6-dihydroxy-4'-(trifluoromethoxy)[1,1'-biphenyl]-3-yl]-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-00-7 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-2',5'-dimethyl[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-01-8 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-3',5'-dimethyl[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-02-9 CAPLUS

CN Acetamide, N-[5'-[2,3-dihydro-2-oxo-5-(trifluoromethyl)-1H-benzimidazol-1-yl]-2',4'-dihydroxy[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

RN 936218-03-0 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2',3'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-04-1 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2',4'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-05-2 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2',5'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-06-3 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-2'-methyl[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-07-4 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-4'-methyl[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-08-5 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-09-6 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-10-9 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2'-chloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-11-0 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3'-chloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-12-1 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4'-chloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-13-2 CAPLUS

CN 2H-Benzimidazol-2-one, 1-[4,6-dihydroxy-3'-(trifluoromethyl)[1,1'-biphenyl]-3-yl]-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-18-7 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-3',4',5'-trimethoxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-19-8 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy[1,1':3',1''-terphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-20-1 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy[1,1':4',1''-terphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-21-2 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3',5'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-22-3 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3',4'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-23-4 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-2'-methyl[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-29-0 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(3'-acetyl-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro-5-(trifluoromethyl)- (CA INDEX NAME)

RN 936218-36-9 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2',4'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-37-0 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-4'-methyl[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-38-1 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-2'-phenoxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-42-7 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2',5'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-43-8 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2',3'-dichloro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-44-9 CAPLUS

CN 2H-Benzimidazol-2-one, 1-[4,6-dihydroxy-2'-(trifluoromethyl)[1,1'-biphenyl]-3-yl]-1,3-dihydro- (CA INDEX NAME)

RN 936218-45-0 CAPLUS

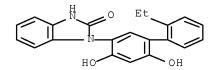
CN 2H-Benzimidazol-2-one, 1-[4,6-dihydroxy-2'-(1-methylethyl)[1,1'-biphenyl]-3-yl]-1,3-dihydro- (CA INDEX NAME)

RN 936218-47-2 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(4,6-dihydroxy-2'-methoxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)

RN 936218-61-0 CAPLUS

CN 2H-Benzimidazol-2-one, 1-(2'-ethyl-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-1,3-dihydro- (CA INDEX NAME)



L19 ANSWER 4 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2006:944485 CAPLUS Full-text

DOCUMENT NUMBER: 145:336056

TITLE: Preparation of 3-(2,4-dihydroxyphenyl)-1,2,4-triazole

derivatives as novel inhibitors of heat-shock proteins

HSP 90

INVENTOR(S): Kuramochi, Hiroshi; Niitsuma, Setsuko; Nakamura,

Masaharu; Sato, Yoshitaka; Saito, Seiichi; Tomura,

Arihiro; Ichikawa, Yuh-Ichiro; Kasuga, Yousuke

PATENT ASSIGNEE(S): Nippon Kayaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 167pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND DATE			APPL	ICAT	ION I	DATE							
WO 2006095783			A1 20060914		WO 2006-JP304496					20060308							
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KN,	KP,	KR,
		KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
		MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
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CA	CA 2598899 A1			2006	060914 CA 2006-2598899					20060308							
EP	EP 1857446 A1 20071		1121	EP 2006-715416						20060308							
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		IS,	ΙΤ,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR	
KR	KR 2007112400			А		2007	1123		KR 2	007-	7228	89		2	0071	800	
CN	CN 101160291		Α		2008	0409		CN 2	006-	8001	2406		2	0071	015		
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										WO 2	006-	JP30	4496	1	W 2	0060	308
CHEB SO	ALID CE	191.			MAD.	ロカエ	145.	3360	56								

OTHER SOURCE(S): MARPAT 145:336056

GΙ

The title compds. [I; X = SH, HO, halo, NO2, cyano, CO2H, each (un) substituted AΒ alkyl, alkenyl, alkynyl, carbocyclic or heterocyclic aryl, alkylthio, arylthio, alkylsulfinyl, arylsulfinyl, alkylsulfonyl, arylsulfonyl, SO2NH2, alkoxyl, aryloxy, acyloxy, alkoxycarbonyloxy, carbamoyloxy, NH2, acylamino, alkoxycarbonylamino, ureido, sulfonylamino, sulfamoylamino, formyl, aryl, alkoxycarbonyl, CONH2, or silyl; Y = SH, HO, halo, cyano, each (un)substituted sulfonyl, alkylthio, arylthio, arylsulfinyl, SO2NH2, alkoxyl, aryloxy, acyloxy, alkoxycarbonyloxy, carbamoyloxy, NH2, acylamino, alkoxycarbonylamino, ureido, sulfonylamino, sulfamoylamino, formyl, acyl, or silyl; R = each (un) substituted carbocyclic or heterocyclic aryl, alkyl, alkenyl, alkynyl, or NH2] or pharmacol. acceptable salts thereof are prepared These compds. inhibit the function of HSP 90 by binding to the ATP-binding site of HSP 90 and thereby inhibit proliferation of cells and are useful as anticancer agents. Thus, 4-[4-(morpholin-4-yl)-phenyl] semicarbazide was condensed with 5-isopropyl-2, 4-bis(methoxymethoxy)benzoic acid using <math>1-ethyl-3-(3-isopropyl-2, 4-bis(methoxy)benzoic acid using <math>1-ethyl-3-(3-isopropyl-2, 4-bis(methoxy)benzoic acid using <math>1-ethyl-3-(3-isopropyl-2, 4-bis(methoxy)benzoic acid using <math>1-ethyl-3-(3-isopropyl-2, 4-bis(methoxy)benzoic acid using adimethylaminopropyl)carbodiimide and HOBt in a mixture of N-methylpyrrolidone and DMF at room temperature overnight to give 70% 4-[4-(morpholin-4yl)phenyl]-1-[5-isopropyl-2,4- bis(methoxymethoxy)benzoyl]semicarbazide (II). II was cyclized by heating in 5% aqueous NaOH solution at 105° for 2 h and then adding KOH and heating at 130° for 3 h to give 16% 5-[5-isopropyl-2,4bis(methoxymethoxy)phenyl]-4-[4-(morpholin-4-yl)-phenyl]-4H-[1,2,4]triazol-3ol which was treated with a mixture of 5 N aqueous HCl solution and MeOH at room temperature for 4 h to give 4-(5-hydroxy-4-[4-(morpholin-4-yl)phenyl]-4H-[1,2,4]triazol-3-yl)-6-isopropylbenzene-1,3-diol (III). III in vitro showed IC50 of  $\mu g/mL$  against HSP 90 in an assay inducing the reduction of HSP 90binding proteins Her and ERlpha in MCF7 cells and in vivo showed IC50 of 0.014  $\mu M$ against human lung cancer in mice.

IT 909872-76-0P, 4-(4-Hydroxyphenyl)-6-[4-isopropyl-5-[[3-(piperidin-1-yl)propan-1-yl]sulfonyl]-4H-1,2,4-triazol-3-yl]benzene-1,3-diol monotrifluoroacetate

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 3-(2,4-dihydroxyphenyl)-1,2,4-triazole derivs. as inhibitors of heat-shock proteins HSP 90 and anticancer agents)

RN 909872-76-0 CAPLUS

CN [1,1'-Biphenyl]-2,4,4'-triol, 5-[4-(1-methylethyl)-5-[[3-(1-piperidinyl)propyl]sulfonyl]-4H-1,2,4-triazol-3-yl]-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 909872-75-9 CMF C25 H32 N4 O5 S

CM 2

CRN 76-05-1 CMF C2 H F3 O2

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2006:431871 CAPLUS Full-text

DOCUMENT NUMBER: 145:124995

TITLE: Oligoresorcinols Fold into Double Helices in Water AUTHOR(S): Goto, Hidetoshi; Katagiri, Hiroshi; Furusho, Yoshio;

Yashima, Eiji

CORPORATE SOURCE: Yashima Super-structured Helix Project ERATO, Japan

Science and Technology Agency (JST), 2266-22

Shimoshidami, Moriyama-ku, Nagoya, 463-0003, Japan

SOURCE: Journal of the American Chemical Society (2006),

128(22), 7176-7178

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 145:124995

AB We report the first double helixes with a controlled helicity in water based on oligoresorcinols as a new, simplest water-soluble structural motif. The mol. strands of the oligoresorcinols self-assemble into double helixes with the aid of aromatic interactions in water as characterized by 1H NMR and absorption spectroscopies together with the X-ray crystallog. study of the pentamer. The double helix formation is sensitive to the chain length, solvent composition, and temperature Moreover, a bias in the screw sense of the double helixes was achieved by covalently attaching chiral substituents to both ends of the mol. strands.

IT 896507-46-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and characterization of oligoresorcinols capable of folding into double helixes in water)

RN 896507-46-3 CAPLUS

Absolute stereochemistry.

PAGE 1-A

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:612072 CAPLUS <u>Full-text</u> DOCUMENT NUMBER: 143:146661

TITLE: Hsp90 family protein inhibitor

INVENTOR(S): Kitamura, Yushi; Nara, Shinji; Nakagawa, Hiroshi; Nakatsu, Rieko; Nakashima, Takayuki; Soga, Shiro; Kajita, Jiro; Shiotsu, Yukimasa; Kanda, Yutaka

PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 311 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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WO 2005063222
                         Α1
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                                          WO 2004-JP19742
                                                                   20041224
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             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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     EP 1704856
                                20060927
                                           EP 2004-808092
                         Α1
                                                                   20041224
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     US 20070155813
                         Α1
                              20070705
                                           US 2006-584234
                                                                   20060626
PRIORITY APPLN. INFO.:
                                            JP 2003-432776
                                                               A 20031226
                                                              W 20041224
                                            WO 2004-JP19742
                       MARPAT 143:146661
OTHER SOURCE(S):
GΙ
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AB A Hsp90 family protein inhibitor which contains as an active ingredient a benzene derivative represented by the following general formula (I), a prodrug thereof, or a pharmacol. acceptable salt of either.

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860151-78-6P 860151-80-0P 860151-83-3P
ΙT
     860151-86-6P 860151-87-7P 860151-88-8P
     860151-90-2P 860151-92-4P 860151-94-6P
     860151-96-8P 860151-98-0P 860152-01-8P
     860152-03-0P 860152-05-2P 860152-09-6P
     860152-10-9P 860152-12-1P 860152-17-6P
     860152-18-7P 860152-25-6P 860152-26-7P
     860152-30-3P 860152-31-4P 860152-40-5P
     860152-43-8P 860152-44-9P 860152-54-1P
     860152-55-2P 860152-56-3P 860152-57-4P
     860152-58-5P 860152-61-0P 860152-62-1P
     860152-63-2P 860152-64-3P 860152-65-4P
     860152-66-5P 860152-67-6P 860152-68-7P
     860152-69-8P 860152-70-1P 860152-77-8P
     860153-11-3P 860153-12-4P 860153-29-3P
     860153-30-6P 860153-38-4P 860153-86-2P
     860153-99-7P 860154-06-9P 860154-15-0P
     860154-16-1P 860154-18-3P 860154-19-4P
     860154-20-7P 860154-66-1P 860154-67-2P
     860154-68-3P 860154-69-4P 860154-70-7P
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860154-71-8P 860154-72-9P 860154-73-0P 860154-74-1P 860154-75-2P 860154-76-3P 860154-77-4P 860154-78-5P 860154-79-6P 860154-80-9P 860154-81-0P 860154-82-1P 860154-92-3P 860154-94-5P 860293-36-3P 860293-37-4P 860293-38-5P 860293-42-1P 860293-43-2P 860293-43-2P 860293-44-3P 860293-45-4P 860293-46-5P 860293-47-6P 860293-42-7P 860293-62-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(benzene derivs. as Hsp90 family protein inhibitors and antitumor agents)

RN 860151-78-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-, methyl ester (CA INDEX NAME)

$$\begin{array}{c} \text{O} \\ \text{HO} \\ \text{OH} \end{array} \begin{array}{c} \text{CH}_2 - \begin{array}{c} \text{O} \\ \text{C} \\ \text{OMe} \end{array} \end{array}$$

RN 860151-80-0 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(3-oxo-1-buten-1-yl)-, methyl ester (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-CH}_2 \\ \text{HO} \end{array} \begin{array}{c} \text{CH}_2 \\ \text{OH} \end{array}$$

RN 860151-83-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-[(hydroxyimino)methyl]-, methyl ester (CA INDEX NAME)

RN 860151-86-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-[(methoxyimino)methyl]-, methyl ester (CA INDEX NAME)

RN 860151-87-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(3-oxobutyl)-, methyl ester (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-} \overset{\circ}{\mathbb{U}} = \text{CH}_2 \\ \text{HO} & \text{CH}_2 = \text{CH}_2 = \overset{\circ}{\mathbb{U}} = \text{Me} \end{array}$$

RN 860151-88-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-2'-methoxy-, methyl ester (CA INDEX NAME)

RN 860151-90-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 2'-chloro-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

RN 860151-92-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3'-acetyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

$$\begin{array}{c} O \\ MeO - CH_2 \\ \hline \\ HO \end{array}$$

RN 860151-94-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-[2-(dimethylamino)ethyl]-4,6-dihydroxy- (CA INDEX NAME)

RN 860151-96-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-bromo-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

RN 860151-98-0 CAPLUS

CN [1,1':3',1''-Terphenyl]-2'-acetic acid, 4',6'-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)

RN 860152-01-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3-iodo-, methyl ester (CA INDEX NAME)

RN 860152-03-0 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3-(4-morpholinylmethyl)-, methyl ester (CA INDEX NAME)

$$CH_2$$
  $N$ 

RN 860152-05-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, N-[2-(acetylamino)ethyl]-3-bromo-4,6-dihydroxy- (CA INDEX NAME)

$$\begin{array}{c} \text{Br} & \overset{\circ}{\text{CH}_2} - \overset{\circ}{\text{C-}} \text{NH-CH}_2 - \text{CH}_2 - \text{NHAc} \\ \\ \text{Ph} & \overset{\circ}{\text{OH}} \end{array}$$

RN 860152-09-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(2-methylpropyl)- (CA INDEX NAME)

RN 860152-10-9 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-propyl- (CA INDEX NAME)

RN 860152-12-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(2-methoxyethyl)- (CA INDEX NAME)

HO 
$$\longrightarrow$$
 CH<sub>2</sub>— CH<sub>2</sub>— CH<sub>2</sub>— CH<sub>2</sub>— OMe

RN 860152-17-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-[(2,4-dimethoxyphenyl)methyl]-4,6-dihydroxy- (CA INDEX NAME)

RN 860152-18-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl-N-(phenylmethyl)- (CA INDEX NAME)

HO 
$$CH_2$$
  $CH_2$   $Ph$ 

RN 860152-25-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl-N-propyl- (CA INDEX NAME)

$$\begin{array}{c} \text{Br} & \text{OMe} \\ \text{HO} & \text{N-Pr-n} \\ \text{Ph} & \text{Ph} \end{array}$$

RN 860152-26-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(2-methoxyethyl)-N-methyl- (CA INDEX NAME)

RN 860152-30-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl- (CA INDEX NAME)

RN 860152-31-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N,N-dimethyl- (CA INDEX NAME)

HO 
$$\begin{array}{c} \text{Br} \\ \text{CH}_2 - \begin{array}{c} \text{O} \\ \text{NMe}_2 \end{array}$$

RN 860152-40-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

RN 860152-43-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-formyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

RN 860152-44-9 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3-methyl-, methyl ester (CA INDEX NAME)

RN 860152-54-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(3-methoxy-3-oxo-1-propen-1-yl)-, methyl ester (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-CH}_2 \\ \text{HO} \end{array} \begin{array}{c} \text{CH}_2 \\ \text{OMe} \end{array}$$

RN 860152-55-2 CAPLUS

CN [1,1'-Biphenyl]-3-propanoic acid, 2',4'-dihydroxy-6'-(2-methoxy-2-oxoethyl)- (CA INDEX NAME)

$$\begin{array}{c} \text{MeO-CH}_2 \\ \text{HO} \end{array} \begin{array}{c} \text{CH}_2 \\ \text{CH}_2 - \text{CH}_2 - \text{CO}_2 \text{H} \end{array}$$

RN 860152-56-3 CAPLUS

CN [1,1'-Biphenyl]-3-propanoic acid, 3'-bromo-4',6'-dihydroxy-2'-(2-methoxy-2-oxoethyl)- (CA INDEX NAME)

CN [1,1'-Biphenyl]-2-acetic acid, 3-acetyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

RN 860152-58-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3-(phenylmethyl)-, methyl ester (CA INDEX NAME)

HO 
$$CH_2$$
 OMe

RN 860152-61-0 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4'-acetyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

RN 860152-62-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(trifluoromethoxy)-, methyl ester (CA INDEX NAME)

RN 860152-63-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-4'-(trifluoromethoxy)-, methyl ester (CA INDEX NAME)

RN 860152-64-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(hydroxymethyl)-, methyl ester (CA INDEX NAME)

RN 860152-65-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-nitro-, methyl ester (CA INDEX NAME)

RN 860152-66-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3'-cyano-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

RN 860152-67-6 CAPLUS

CN [1,1':4',1''-Terphenyl]-2-acetic acid, 4,6-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)

$$R CH_2 CH_2 OMe$$

RN 860152-68-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-4'-phenoxy-, methyl ester (CA INDEX NAME)

RN 860152-69-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-methoxy-, methyl ester (CA INDEX NAME)

RN 860152-70-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-4'-methoxy-, methyl ester (CA INDEX NAME)

$$\bigcap_{\mathsf{HO}} \mathsf{OH} = \bigcap_{\mathsf{R}} \mathsf{OMe}$$

RN 860152-77-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl-N-[2-(2-pyridinyl)ethyl]- (CA INDEX NAME)

RN 860153-11-3 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-(3-hydroxypropyl)- (CA INDEX NAME)

RN 860153-12-4 CAPLUS

CN Ethanone, 1-[4,6-dihydroxy-2-(3-hydroxypropyl)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

RN 860153-29-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-acetyl-4,6-dihydroxy-3'-methoxy-N-(2-methoxyethyl)-N-methyl- (CA INDEX NAME)

RN 860153-30-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4,6-dihydroxy-3'-methoxy-, methyl ester (CA INDEX NAME)

RN 860153-38-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-4,6-dihydroxy-3'-methoxy-N-(2-methoxyethyl)-N-methyl- (CA INDEX NAME)

RN 860153-86-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-4,6-dihydroxy-N,N-bis(2-hydroxyethyl)- (CA INDEX NAME)

$$\begin{array}{c} \text{Ph} & \text{O} & \text{CH}_2-\text{CH}_2-\text{OH} \\ \text{HO} & \text{CH}_2-\text{CH}_2-\text{CH}_2-\text{OH} \\ \text{Et} \end{array}$$

RN 860153-99-7 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[[4-(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]- (CA INDEX NAME)

RN 860154-06-9 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-15-0 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-16-1 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

RN 860154-18-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-19-4 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methoxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-20-7 CAPLUS

CN Ethanone, 1-[2-[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-4,6-dihydroxy[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-66-1 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-chloro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

RN 860154-67-2 CAPLUS

CN [1,1'-Biphenyl]-2,3',4-triol, 6-[[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-68-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-3'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-69-4 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3',5'-dimethyl[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

RN 860154-70-7 CAPLUS

CN Acetamide, N-[2'-[[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-71-8 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-72-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-methyl- (CA INDEX NAME)

RN 860154-73-0 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N,N-dimethyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-74-1 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4'-fluoro-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-75-2 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3'-chloro-3-ethyl-4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-76-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-3',4'-difluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-77-4 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-(2-methoxyethyl)- (CA INDEX NAME)

RN 860154-78-5 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-(2-hydroxyethyl)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-79-6 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-N-cyclopropyl-3'-ethyl-4',6'-dihydroxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-80-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-propyl- (CA INDEX NAME)

RN 860154-81-0 CAPLUS

CN [1,1'-Biphenyl]-2,3',4-triol, 6-[[(4R,5R)-4,5-bis(methoxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-82-1 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 6-[[(4R,5R)-4,5-bis(methoxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 860154-92-3 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 6-ethyl-5-[[4-(hydroxymethyl)-2-oxazolyl]methyl]- (CA INDEX NAME)

RN 860154-94-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-4,6-dihydroxy-N-(2-hydroxyethyl)-N-(3-methoxypropyl)- (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{O} & \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \\ \text{HO} & \text{CH}_2\text{--}\text{C}\text{--}\text{N}\text{--}(\text{CH}_2) \text{ 3}\text{--}\text{OMe} \\ \end{array}$$

RN 860293-36-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-37-4 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

RN 860293-38-5 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-chloro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-39-6 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methoxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-40-9 CAPLUS

CN Ethanone, 1-[2-[[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-4,6-dihydroxy[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-41-0 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N,N-dimethyl- (CA INDEX NAME)

RN 860293-42-1 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-methyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-43-2 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-44-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-3'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-45-4 CAPLUS

CN [1,1'-Biphenyl]-2,3',4-triol, 6-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-46-5 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-3',4'-difluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-47-6 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3'-chloro-3-ethyl-4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 860293-48-7 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5S)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 860293-62-5 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4'-fluoro-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c} \text{HO} \\ \text{R} \\ \text{R} \\ \end{array}$$

IT 860156-57-6P 860293-52-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(benzene derivs. as Hsp90 family protein inhibitors and antitumor agents)

RN 860156-57-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-acetyl-4,6-dihydroxy-3'-methoxy-, methyl ester (CA INDEX NAME)

RN 860293-52-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:140804 CAPLUS Full-text

DOCUMENT NUMBER: 142:240419

TITLE: Preparation of substituted thieno[2,3-b]pyridones as

activators for AMP-activated kinase for the treatment

of diabetes and obesity

INVENTOR(S): Iyengar, Rajesh R.; Judd, Andrew S.; Zhao, Gang; Kym,

Philip R.; Sham, Hing L.; Gu, Yugui; Liu, Gang; Liu, Mei; Zhao, Hongyu; Clark, Richard F.; Frevert, Ernst U.; Cool, Barbara L.; Zhang, Tianyuan; Keyes, Robert

F.; Hansen, Todd M.; Xin, Zhili

PATENT ASSIGNEE(S): Abbott Laboratories, USA

SOURCE: U.S. Pat. Appl. Publ., 86 pp.

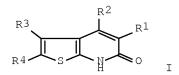
CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050038068 US 7119205	A1 B2	20050217 20061010	US 2004-847144	20040517
US 20060287356	A1	20061221	US 2006-509383	20060824
PRIORITY APPLN. INFO.:			US 2003-471064P	P 20030516
			US 2004-847144	A3 20040517



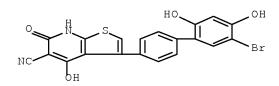
AB Title compds. I [R1 = H, alkoxy, alkoxycarbonyl, etc.; R2 = alkoxy, OH, thioalkoxy, etc.; R3 = alkoxycarbonyl, aryl, etc.; R4 = H, alk(en/yn)yl, aryl, etc.] are prepared For instance,  $3-(3,5-\text{dimethylphenyl})-4-\text{hydroxy-}6-\text{ oxo-}6,7-\text{dihydrothieno}[2,3-b]pyridine-5-carbonitrile is prepared in several steps from 3,5-dimethylacetophenone, Et cyanoacetate and cyanoacetic acid. Representative compds. of the invention activate AMPK at a dose of 1-100 <math>\mu$ M. I are useful for the treatment of disorders such as diabetes, metabolic syndrome and obesity.

IT 844501-31-1P, 3-[4-(5-Bromo-2,4-dihydroxyphenyl)phenyl]-4-hydroxy-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-5-carbonitrile
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted thieno[2,3-b]pyridones as activators for AMP-activated kinase for treatment of diabetes and obesity)

RN 844501-31-1 CAPLUS

CN Thieno[2,3-b]pyridine-5-carbonitrile, 3-(5'-bromo-2',4'-dihydroxy[1,1'-biphenyl]-4-yl)-6,7-dihydro-4-hydroxy-6-oxo- (CA INDEX NAME)



L19 ANSWER 8 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:99354 CAPLUS Full-text

DOCUMENT NUMBER: 142:198068

TITLE: Preparation of aminopyrazoles as CHK1 checkpoint

protein kinase inhibitors.

INVENTOR(S): Johnson, Michael David; Teng, Min; Zhu, Jinjiang

PATENT ASSIGNEE(S): Pfizer Inc., USA

SOURCE: PCT Int. Appl., 127 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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     WO 2005009435
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                                           WO 2004-IB2397
                                                                   20040714
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             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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                                20060330
                                                                   20060124
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PRIORITY APPLN. INFO.:
                                            US 2003-489976P
                                                                P 20030725
                                            WO 2004-IB2397
                                                                W 20040714
                   CASREACT 142:198068; MARPAT 142:198068
OTHER SOURCE(S):
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AB Title compds. [I; L = 5-6 membered (substituted) heterocyclylene; Ar = 5-6 membered (substituted) (hetero)aryl; R1 = (substituted) aryl(alkyl), heterocyclyl(alkyl), cycloalkyl(alkyl), alkenyl, alkyl; R2 = H, halo, (substituted) alkyl], were prepared Thus, title compound (II) (preparation outlined) inhibited human CHK1 with Ki <1 nM.

IT 838823-35-1P

GΙ

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of aminopyrazoles as CHK1 checkpoint protein kinase inhibitors)

RN 838823-35-1 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 4'-[5-[[4-[(cyclopropylamino)methyl]phenyl]amino ]-1H-pyrazol-3-yl]-5-methyl- (CA INDEX NAME)

IT 838824-27-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminopyrazoles as CHK1 checkpoint protein kinase inhibitors)

RN 838824-27-4 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-methyl-4'-[3-[[4-[[(1-

methylethyl)amino]methyl]phenyl]amino]-1H-pyrazol-5-yl]- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 9 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:788103 CAPLUS Full-text

DOCUMENT NUMBER: 142:170224

TITLE: De Novo ligand design of selective estrogen receptor

modulators (SERMs)

AUTHOR(S): Joomprabutra, Surachai

CORPORATE SOURCE: Division of Pharmaceutical Chemistry and Technology,

Faculty of Pharmaceutical Sciences, Ubon Ratchathani

University, Ubon Rathathani, 34190, Thailand

SOURCE: Warasan Phesatchasat (2003), 30(3), 47-56

CODEN: VPSADN; ISSN: 0125-1570

PUBLISHER: Mahidol University, Faculty of Pharmacy

DOCUMENT TYPE: Journal LANGUAGE: English

AΒ Estrogen controls various physiol. processes such as sexual differentiation and development, cardiovascular system, and bone health. The reduction of estrogen in the body like in postmenopausal women leads to an incidence of coronary heart disease and lost of bone mineral d. However, estrogen use in hormone replacement therapy is associated with an increased risk of uterine and breast cancer which limits its use as a replacement in postmenopausal women. The finding of group of estrogen receptor ligands having ability to behave as partial or full agonists in some tissues while behaving as antagonists in others, they are called selective estrogen receptor modulators (SERMs). In this study, preliminary SERMs pharmacophore was developed based on the different in mode of binding of ligands. This pharmacophore was used in the De Novo ligand design process to generate the candidates. Candidates were first evaluated by their binding affinity and their bioavailability via their compliance to Lipinski's rule of five. In this preliminary study, three candidates were selected based on their conforming to generated SERM's pharmacophore. They were further analyzed for their inhibition constant and their ability to select the binding mode of raloxifene over that of 40Htamoxifen. All candidates have shown inhibition constant in the micromolar and submicromolar range while one of the candidate shows selectivity to the prefer binding mode better than that of raloxifene. These results prove the validity of the generated pharmacophore. Further enhancement of current pharmacophore would result in more precise pharmacophore aiming for the next generation of SERMs ligands which have higher potency and tissue selectivity.

ΙT 835615-05-9

> RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(de Novo ligand design of selective estrogen receptor modulators)

835615-05-9 CAPLUS RN

Formamide, N-[(2E,6E)-8-[2'-ethenyl-4',6'-dihydroxy-4-(nitrosomethyl)][1,1'-CN biphenyl]-2-yl]-5-ethyl-2,6,8-nonatrien-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 10 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:696360 CAPLUS Full-text

DOCUMENT NUMBER: 141:225492

TITLE: Preparation of isoxazoles as inhibitors of heat shock

proteins

INVENTOR(S): Drysdale, Martin James; Dymock, Brian William; Finch,

> Harry; Webb, Paul; Mcdonald, Edward; James, Karen Elizabeth; Cheung, Kwai Ming; Mathews, Thomas Peter

Vernalis Cambridge Limited, UK; Cancer Research PATENT ASSIGNEE(S):

Technology Ltd; The Institute of Cancer Research; et

al.; et al.

SOURCE: PCT Int. Appl., 180 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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M	200				A1 20040826			WO 2004-GB506											
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	S,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MC	3,	MK,	MN,	MW,	MX,	MΖ,	NA,	ΝI	
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										GB	20	03-3	1375	1		A 2	0030	613	
										WO	20	04-0	GB50	6		W 2	0040	209	
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OTHER SOURCE(S): MARPAT 141:225492

GΙ

Title compds. [I, II; R1 = Ar1(Alk1)p(Z)r(Alk2)sQ; Ar1 = (substituted) aryl, heteroaryl; Alk1, Alk2 = (substituted) alkylene, alkenylene; p, r, s = 0, 1; Z = 0, S, CO, CS, SO2, CO2, CONRA, CSNRA, SO2NRA, NRACO, NRASO2, NRA; RA = H, alkyl; Q = H, (substituted) carbocyclyl, heterocyclyl; R2 = Ar1(Alk1)p(Z)r(Alk2)sQ, carboxamide, carbocyclyl, heterocyclyl optionally substituted by (Alk1)pZr(Alk2)sQ; R3 = H, (substituted) cycloalkyl, cycloalkenyl, alkyl, alkenyl, alkynyl, carboxyl, carboxamide, carboxyl ester], were prepared Thus, NH2OH.HCl and 7-hydroxy-3-(4-methoxyphenyl)-2-methylchromen-4-one (preparation given) were refluxed 4 h in pyridine to give 4-[4-(4-methoxyphenyl)-3-methylisoxazol-5-yl]benzene-1,3-diol. The latter in the Malachite Green ATPase assay inhibited HSP90 with IC50 <50 μM.</p>
IT 747412-67-5P 747412-68-6P 747412-69-7P

747412-70-0P 747412-71-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of isoxazoles as inhibitors of heat shock proteins)

RN 747412-67-5 CAPLUS

CN 3-Isoxazolecarboxamide, 4-[4-[(diethylamino)methyl]phenyl]-5-(4,6-dihydroxy-2'-methyl[1,1'-biphenyl]-3-yl)-N-ethyl- (CA INDEX NAME)

RN 747412-68-6 CAPLUS

CN 3-Isoxazolecarboxamide, 4-[4-[(diethylamino)methyl]phenyl]-N-ethyl-5-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)- (CA INDEX NAME)

RN 747412-69-7 CAPLUS

CN 3-Isoxazolecarboxamide, 4-[4-[(diethylamino)methyl]phenyl]-5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl- (CA INDEX NAME)

CN 3-Isoxazolecarboxamide, N-ethyl-5-(2'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-(1-pyrrolidinylmethyl)phenyl]- (CA INDEX NAME)

RN 747412-71-1 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-(4-morpholinylmethyl)phenyl]- (CA INDEX NAME)

IT 747412-83-5P 747413-77-0P 747413-81-6P

747413-82-7P 747413-83-8P 747413-89-4P

747413-91-8P 747413-92-9P 747413-93-0P

747413-98-5P 747414-00-2P 747414-01-3P

747414-02-4P 747414-03-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of isoxazoles as inhibitors of heat shock proteins)

RN 747412-83-5 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-[4-(4-methoxyphenyl)-3-methyl-5-isoxazolyl]- (CA INDEX NAME)

RN 747413-77-0 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl-4-(4-fluorophenyl)- (CA INDEX NAME)

RN 747413-81-6 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-(4-fluorophenyl)- (CA INDEX NAME)

RN 747413-82-7 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-(1-piperidinylmethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

RN 747413-83-8 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-(4-morpholinylmethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

RN 747413-89-4 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-(1-piperidinylmethyl)phenyl]-, acetate (1:1) (CA INDEX NAME)

CM 1

CRN 747413-88-3 CMF C30 H31 N3 O4

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 747413-91-8 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(2'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-(1-piperidinylmethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 747413-92-9 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(2'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-(4-morpholinylmethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

CN 3-Isoxazolecarboxamide, N-ethyl-5-(2'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-[(4-methyl-1-piperazinyl)methyl]phenyl]- (CA INDEX NAME)

RN 747413-98-5 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy-2'-methyl[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-(1-piperidinylmethyl)phenyl]- (CA INDEX NAME)

RN 747414-00-2 CAPLUS

CN 3-Isoxazolecarboxamide, N-ethyl-5-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-4-[4-[(4-methyl-1-piperazinyl)methyl]phenyl]- (CA INDEX NAME)

RN 747414-01-3 CAPLUS

CN 3-Isoxazolecarboxamide, 4-[4-[(diethylamino)methyl]phenyl]-N-ethyl-5-(4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-3-yl)-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 747414-02-4 CAPLUS

CN 3-Isoxazolecarboxamide, 5-(4,6-dihydroxy-2'-methyl[1,1'-biphenyl]-3-yl)-N-ethyl-4-[4-[(4-methyl-1-piperazinyl)methyl]phenyl]- (CA INDEX NAME)

RN 747414-03-5 CAPLUS

CN 3-Isoxazolecarboxamide, 4-[4-[(diethylamino)methyl]phenyl]-5-(4,6-dihydroxy-2'-methyl[1,1'-biphenyl]-3-yl)-N-ethyl-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

L19 ANSWER 11 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:555342 CAPLUS Full-text

DOCUMENT NUMBER: 139:323683

TITLE: Preparation of 6-phenyl- and 8-phenyl tetrahydro-isoquinolines from boldine

AUTHOR(S): Huang, Wei-Jan; Chen, Chung-Hsiung; Lee, Shoei-Sheng CORPORATE SOURCE: School of Pharmacy, College of Medicine, National

Taiwan University, Taipei, 100, Taiwan

SOURCE: Heterocycles (2003), 60(7), 1573-1588

CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:323683

GΙ

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Four 6-phenyl- and 8-phenyltetrahydroisoquinolines, e.g. I (R = H, Me, Ph), were prepared by structural modifications of the boldine nucleus. These involved four major reaction steps, including solvolysis of the 2-hydroxyaporphine (boldine), ozonolysis of the C-9,10 double bond of the phenanthrene nucleus in secoboldine derivative II, leading to the key intermediate, dialdehyde III, and final Pictet-Spengler cyclization to resp. target products.

IT 613223-27-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of phenylisoquinolines from boldine via solvolysis of hydroxyaporphine, ozonolysis, and Pictet-Spengler cyclization)

RN 613223-27-1 CAPLUS

CN Carbonic acid, 5-[2-[[(1,1-dimethylethoxy)carbonyl]methylamino]ethyl]-2',6-dihydroxy-2,5'-dimethoxy[1,1'-biphenyl]-3,4'-diyl bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 12 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:532647 CAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 139:101122

TITLE: Preparation of 3,4-diarylpyrazoles as inhibitors of

heat shock protein 90 (HSP90) and their use in the

therapy of cancer

INVENTOR(S): Drysdale, Martin James; Dymock, Brian William;

Barril-Alonso, Xavier; Workman, Paul; Pearl, Laurence Harris; Prodromou, Chrisostomos; MacDonald, Edward

PATENT ASSIGNEE(S): Ribotargets Limited, UK; Cancer Research Technology

Limited; The Institute of Cancer Research

SOURCE: PCT Int. Appl., 299 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D	ATE	
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		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
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		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FΙ,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG		
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EP	1456	180			A1		2004	0915		EP 2	002-	8058	23		2	0021	219
EP	1456	180			В1		2007	1003									
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JP	2005	5176	75		Τ		2005	0616	1	JP 2	003-	5563	91		2	0021	219
AT	3747	53			T		2007	1015		AT 2	002-	8058	23		2	0021	219
US	2005	0222	230		A1		2005	1006		US 2	005-	4990.	30		2	0050	425
US	7247	734			В2		2007	0724									
RIORIT	Y APP	LN.	INFO	.:					1	GB 2	001-	3073.	3	ž	A 2	0011	221
									1	GB 2	002-	2568	8	i	A 2	0021	104
									,	WO 2	002-	GB57	78	Ţ	W 2	0021	219
O	OLIDOR	(0)			MAD.		100	1011	2.0								

AB A method of inhibiting HSP90 comprises administration of title compds. [I; Ar3, Ar4 = (substituted) C5-20 aryl; R5 = H, halo, OH, ether, formyl, acyl, CO2H, ester, acyloxy, oxycarbonyloxy, amido, acylamido, aminocarbonyloxy, tetrazolyl, amino, NO2, cyano, N3, sulfhydryl, thioether, sulfonamido, C1-7 alkyl, C3-20 heterocyclyl, C5-20 aryl; R = H, C1-7 alkyl, C3-20 heterocyclyl, C5-20 aryl] and pharmaceutically acceptable salts, solvates, amides, esters, ethers, chemical protected forms, and prodrugs thereof. Thus, 7-hydroxy-3-phenylchromen-4-one and hydrazine hydrate were refluxed 45 min. in EtOH to

give 4-(4-phenyl-1H-pyrazol-3- yl)benzene-1,3-diol. This inhibited HSP90 activity with IC50 = 10-100  $\mu M$ .

IT 558638-25-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of diarylpyrazoles as inhibitors of heat shock protein 90 and their use in the therapy of cancer)

RN 558638-25-8 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-[4-(4-methoxyphenyl)-5-methyl-1H-pyrazol-3-yl]- (CA INDEX NAME)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 13 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:472498 CAPLUS Full-text

DOCUMENT NUMBER: 139:36523

TITLE: Preparation of thiazolidinones and oxazolidinones for

the inhibition of phosphatases and the treatment of

cancer

INVENTOR(S): Pfahl, Magnus; Al-shamma, Hussien A.; Fanjul, Andrea

N.; Pleynet, David P. M.; Bao, Haifeng; Spruce, Lyle W.; Cow, Christopher N.; Tachdjian, Catherine; Zapt,

James W.; Wiemann, Torsten R.

PATENT ASSIGNEE(S): Maxia Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 182 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT I	. O <i>I</i>			KIN	D	DATE		-	APPL	ICAT	ION :	NO.		D	ATE	
WO	2003	0500	98		A1	_	2003	 0619	,	WO 2	002-	 US39	 178		2	0021	206
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,
		UG,	UZ,	VN,	YU,	ZA,	ZM,	ZW									
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG		

CA	2469	342			A1		2003	0619		CA	200	02-2	24693	342		2	0021	206
AU	2002	3570	98		A1		2003	0623		AU	200	02-3	35709	98		2	0021	206
US	2004	0097	566		A1		2004	0520		US	200	02-3	31334	41		2	0021	206
EP	1463	718			A1		2004	1006		ΕP	200	02-8	30474	47		2	0021	206
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	٦, ١	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑI	J, ]	ΓR,	BG,	CZ,	EE,	SK		
PRIORIT	Y APP	LN.	INFO	.:						US	200	01-3	33719	95P	Ι	2	0011	206
										WO	200	)2-t	JS391	178	I	√ 2	0021	206
OTHER S	OURCE	(S):			MAR:	PAT	139:	3652	3									

GΙ

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- AΒ Title heterocycles I and II [wherein Ar1 = (un)substituted Ph; Ar2 = (un) substituted (hetero) aryl; R1 = H, OH, alkoxy, or (un) substituted alkyl; W = S or O; X = S or O; Y = organic radical comprising 1-15 C atoms; and pharmaceutically acceptable salts thereof] were prepared as phosphatase inhibitors. For example, 3-fluoro-4-hydroxybromobenzene was alkylated with 1adamantanol to give 3-(adamantan-1-y1)-4-hydroxy-5- fluorobromobenzene (45%), which was O-protected with t-butyldimethylsilyl chloride (94%). Coupling with 3-formylphenylboronic acid in the presence of Na2CO3 and Pd(PPh3)4 in toluene, EtOH, and H2O afforded the substituted benzaldehyde (77%). Deprotection (80%) followed by condensation with rhodanine and reaction with morpholine in AcOH and toluene provided III (73%). Representative compds. of the invention inhibited recombinant human Cdc25A at concns. of 1  $\mu M$  and 10  $\mu M$  and killed significant percentages of breast cancer, prostate cancer, non-small-cell lung cancer, and pancreatic cancer cells at concns. in the range of  $10-7~\mathrm{M}$  to  $10-5~\mathrm{M}$ M or higher. Thus, I, II, and pharmaceutical compns. thereof are useful in the treatment of diseases related to uncontrolled cellular proliferation, such as cancer or precancerous conditions. In addition, I and II are also useful for modulating lipid and/or carbohydrate metabolism, and treating Type II diabetes, hyperglycemia, or obesity, and for treating inflammatory diseases, such as arthritis (no data).
- 544475-00-5P, 5-[3-[3-(Adamantan-1-yl)-4-hydroxyphenyl]-4,6-ΙT dihydroxybenzylidene]-2-(morpholin-4-yl)thiazol-4-one RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(phosphatase inhibitor; preparation of thiazolidinone and oxazolidinone phosphatase inhibitors for treatment of cancer, diabetes, and inflammatory diseases)

544475-00-5 CAPLUS RN

4(5H)-Thiazolone, 2-(4-morpholinyl)-5-[(4,4',6-trihydroxy-3'-CN tricyclo[3.3.1.13,7]dec-1-yl[1,1'-biphenyl]-3-yl)methylene]- (CA INDEX NAME)

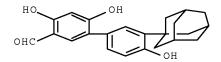
IT 544475-01-6, 3-[3-(Adamantan-1-y1)-4-hydroxypheny1]-4,6-dihydroxybenzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of thiazolidinone and oxazolidinone phosphatase inhibitors for treatment of cancer, diabetes, and inflammatory diseases)

RN 544475-01-6 CAPLUS

CN [1,1'-Biphenyl]-3-carboxaldehyde, 4,4',6-trihydroxy-3'-tricyclo[3.3.1.13,7]dec-1-yl- (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 14 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:295435 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 139:33303

TITLE: Rhuschalcones II-VI, Five New Bichalcones from the

Root Bark of Rhus pyroides

AUTHOR(S): Mdee, Ladislaus K.; Yeboah, Samuel O.; Abegaz, Berhanu

Μ.

CORPORATE SOURCE: Department of Chemistry, University of Botswana,

Gaborone, Botswana

SOURCE: Journal of Natural Products (2003), 66(5), 599-604

CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB Biflavonoids detected in trace amts. in an earlier investigation of the twigs of Rhus pyroides have now been found in the root bark of this species. These new flavonoids belong to a rare bichalcone class and have been identified as 2',4',4'',2''',4'''-pentahydroxy-4-O-5'''-bichalcone (rhuschalcone II, 2), 2',4',4'',2'''-tetrahydroxy-4'''-methoxy-4-O-5'''-bichalcone (rhuschalcone III, 3), 4,2',4'',2'''-tetrahydroxy-4'''-methoxy-4'-O-5'''-bichalcone (rhuschalcone IV, 4), 4,2',4',4'',2''',4'''- hexahydroxy-3,5'''-dihydrochalcone-chalcone (rhuschalcone V, 5), and 4,2',4',4'',2''',4'''-hexahydroxy-3,5'''-bichalcone (rhuschalcone VI, 6), resp. Also obtained was the known compound rhuschalcone I (1). Their structures were determined by spectroscopic and chemical methods, and for 1-3 by total synthesis. All the bichalcones (1-6) tested exhibited selective cytotoxic activity against the HT29 and HCT-116 colon tumor cell lines.

IT 541502-83-4P, Rhuschalcone V 541502-84-5P, Rhuschalcone VI

RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(new bichalcones rhuschalcones II-VI from root bark of Rhus pyroides)

RN 541502-83-4 CAPLUS

CN 2-Propen-1-one, 1-[5'-[3-(2,4-dihydroxyphenyl)-3-oxopropyl]-2',4,6-trihydroxy[1,1'-biphenyl]-3-yl]-3-(4-hydroxyphenyl)-, stereoisomer (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\$$

RN 541502-84-5 CAPLUS

CN 2-Propen-1-one, 1-[5'-[(1E)-3-(2,4-dihydroxyphenyl)-3-oxo-1-propen-1-yl]-2',4,6-trihydroxy[1,1'-biphenyl]-3-yl]-3-(4-hydroxyphenyl)-, (2E)-(-)-(CA INDEX NAME)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 15 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2003:53748 CAPLUS Full-text

DOCUMENT NUMBER: 138:237722

TITLE: Copper(II)-Mediated Autoxidation of

tert-Butylresorcinols

AUTHOR(S): Ling, Ke-Qing; Lee, Younghee; Macikenas, Dainius;

Protasiewicz, John D.; Sayre, Lawrence M.

CORPORATE SOURCE: Department of Chemistry, Case Western Reserve

University, Cleveland, OH, 44106, USA

SOURCE: Journal of Organic Chemistry (2003), 68(4), 1358-1366

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:237722

Although copper(II)-mediated oxidation of phenols results in oxidative AΒ coupling rather than in oxygenation, it was recently reported that naturally occurring 5-alkylresorcinols undergo oxygenation in the presence of copper(II). To explore the generality of this reaction, the copper(II)mediated autoxidn. of 4-tert-butylresorcinol and 4,6-di-tert-butylresorcinol was investigated and was found to result in direct oxygenation at open activated positions and, at the tert-butyl-substituted positions, in oxygenation with competing loss of (as isobutylene) and 1,2-rearrangement of the tert-Bu group. 5-tert-Butyl-2-hydroxy-1,4-benzoquinone is the major product from both starting materials, and the final product mixture reflects, in part, coupling of metastable initially formed electrophilic and nucleophilic side products. Mechanisms that are consistent with the observed products and control reactions are proposed. The key step appears to be equilibration of a copper(II)-resorcinolate with a charge-transfer radical form that reacts regioselectively with O2 as prescribed by resonance.

IT 501668-41-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (autoxidn. of butylresorcinol derivs. by Cu mediation)

RN 501668-41-3 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 5,5'-bis(1,1-dimethylethyl)- (CA INDEX NAME)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2002:927396 CAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 138:13955

TITLE: Preparation of phenol and hydroxynaphthalene based

inhibitors of protein kinase for the treatment of

disease

INVENTOR(S): Cao, Sheldon Xiaodong; Bounaud, Pierre-Yves; Chen,

Xiaohua; Chung, Hyun-Ho; Dumas, David Paul; Kc, Sunil Kumar; Min, Changhee; Yang, Jae Young; Long, Mellissa

С.

PATENT ASSIGNEE(S): LG Biomedical Institute, USA

SOURCE: PCT Int. Appl., 286 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT :	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
	2002 2002								•	WO 2	002-1	JS16	920		2	0020	528
	W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	UZ,	VN,	YU,	ZA,	ZM,	ZW								
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,
		GR,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,
		GN,	GQ,	GW,	$\mathrm{ML}_{\prime}$	MR,	ΝE,	SN,	TD,	ΤG							
AU	2002	3101	87		A1		2002	1209		AU 2	002-	3101	87		2	0020	528
US	2003	0187	007		A1		2003	1002		US 2	002-	1580	30		2	0020.	528
US	2003	0208	067		A1		2003	1106		US 2	002-	1581	03		2	0020.	528
EP	1412	327			A2		2004	0428		EP 2	002-	7372	48		2	0020	528
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
JP	2004	5347	79		Τ		2004	1118	1	JP 2	003-	5000	47		2	0020	528
KR	2004	0266	57		А		2004	0331		KR 2	003-	7153	88		2	0031	125
PRIORIT	Y APP	LN.	INFO	.:						US 2	001-	2947	92P	]	P 2	0010	530

OTHER SOURCE(S): MARPAT 138:13955

GΙ

AΒ Phenol and hydroxynaphthalene derivs. I [X = O, S, amine, alkylamine, alkynylamine, arylamine, and heteroarylamine; R1 = (un)substituted 5- or 6membered aromatic or heteroarom. ring, -(X1)mCOX2-, wherein X1 = alkylene, alkenylene, alkynylene, aryl and heteroaryl, X2 = H, alkyl, aryl, heteroaryl, OH, alkoxy, amino, substituted amine, m = 0 or 1, or R1 = -C(X3) = N - NX4 - C(=E) -NX5X6 wherein X3 = H, alkyl, aryl, alkylaryl, heteroaryl, and amino and E = O, S, and substituted amine with X4, X5, and X6 independently equal to H, alkyl, aryl, and heteroaryl; R2, R3, and R4 = H, alkyl, alkylene, halo, alkoxy, etc.; or R2 and R3 or R3 and R4 may be taken together to form an (un)substituted aromatic or heteroarom. ring; R5 = H, (un)substituted-alkyl, -aryl, heterocycle, etc.; R6 = H, alkyl, alkene, alkyne, aryl, and heteroaryl] are prepared and disclosed as inhibitors of protein kinase. Thus, II was prepared by cyclocondensation of 5'-bromo-2'-methoxyacetophenone with N,Ndimethylformamide di-Et acetal with subsequent Suzuki coupling with 4methoxyphenylboronic acid. In assays to determine cyclin dependent kinase activity, specifically against CDK2 and CDK5, II possessed IC50 values of 0-0.5  $\mu\text{M}$ . II proved highly specific for CDK2 and CDK5 and was further evaluated by in vitro tumor cell efficacy tests against numerous cancers. The present invention is directed in part towards methods of modulating the function of protein kinases with phenol- and hydroxynaphthalene-based compds. The methods incorporate cells that express a protein kinase. In addition, the invention describes methods of preventing and treating protein kinase-related abnormal conditions in organisms with a compound identified by the invention. Furthermore, the invention pertains to phenol- and hydroxynaphthalene-based compds. and pharmaceutical compns. comprising these compds.

IT 477726-38-8P 477726-39-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of phenol and hydroxynaphthalene based inhibitors of protein kinase)

RN 477726-38-8 CAPLUS

CN Hydrazinecarbothioamide, 2-[(4,4',6-trihydroxy[1,1'-biphenyl]-3-

RN 477726-39-9 CAPLUS

CN Hydrazinecarboxamide, 2-[(4,4',6-trihydroxy[1,1'-biphenyl]-3-yl)methylene]-, hydrochloride (1:1) (CA INDEX NAME)

$$\mathbf{H}_{2}\mathbf{N} = \mathbf{C} - \mathbf{N} \mathbf{H} - \mathbf{N} = \mathbf{C} \mathbf{H}$$

$$\mathbf{H}_{0} \mathbf{N} = \mathbf{C} \mathbf{H}$$

$$\mathbf{H}_{0} \mathbf{N} = \mathbf{C} \mathbf{H}$$

$$\mathbf{H}_{0} \mathbf{N} = \mathbf{C} \mathbf{H}$$

● HCl

L19 ANSWER 17 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:868162 CAPLUS Full-text

DOCUMENT NUMBER: 136:5987

TITLE: Thrombopoietin mimetics

INVENTOR(S): Duffy, Kevin J.; Erickson-Miller, Connie L.; Eppley,

Daniel F.; Jenkins, Julian; Luengo, Juan I.; Liu, Nannan; Price, Alan T.; Shaw, Antony N.; Visonneau,

Sophie; Wiggall, Kenneth

PATENT ASSIGNEE(S): SmithKline Beecham Corporation, USA; Glaxo Group

Limited

SOURCE: PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT 1	.OV			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
	2001		-		A2 A3		2001 2002		,	wo 2	001-	US16	863		2	0010	524
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CO,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,
		HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NΖ,	PL,	PT,	RO,
		RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,
		VN,	YU,	ZA,	ZW												
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,

CA	BJ, 2411468 2411468			CI, A1 C		2001	1129		MI CA	L, M 200	MR, 01-2	NE, 2411	SN, 468	TD,	TO	3 20010	524
CA	20010749	2.0		C		2008	1202		70 F T	200	<b>11</b>	7.400	0			20010	E O 4
	1294378	30		A.		2001	U236		AU	200	)1 - / )1 - 0	493	0			20010	524 524
	1294378								C.P	200	J1-9	413	99			20010	J 2 4
LP	R: AT,								CI	э т	TT	тт	ттт	NIT	C E	z MC	рπ
	TE	C T	тт	T 7.7	FТ	DΛ	MK	CV	7\ 1	гт	TD						
BR	20010111 20030022 20030022 20035342 3813875 522474 533308 20012749	16	шт,	Δ,	гт,	2003	0408	CI,	BB TJ	200	11\ 11_1	111	6			20010	524
HII	20010111	57		Δ2		2003	1028		HII	200	13-2	257	O			20010	524 524
HII	20030022	57		Δ3		2003	1328		110	200	00 2	.251				20010	J24
.TP	20030022	57		Т		2007	1118		.TP	200	11_5	857	nз			20010	524
JP	3813875	<i>J</i> ,		B2		2005	0823		OI	200	J	,05,	00			20010	<i>J</i>
N7.	522474			A		2004	1029		NZ.	200	01-5	5224	74			20010	524
NZ	533308			A		2005	1028		NZ	200	01-5	3333	0.8			20010	524
AIJ	20012749	3.8		B2		2006	0119		ΑIJ	200	0.1 - 2	749	38			20010	524
AT	374772	00		Т		2007	1015		АТ	200	01-9	415	99			20010	524
EP	374772 1864981			A1		2007	1212		EP	200	07-1	121	05			20010	524
	R: AT,																
				TR,			,			•	,	•	·	,		,	,
EP	1889838						0220		ΕP	200	07-1	121	06			20010	524
	R: AT,	BE,															
	NL,	PT,	SE,	TR,	SI												
ES	2294000			Т3		2008	0401		ES	200	01-9	415	99			20010	524
NO	20020055	66		А		2003			ИО	200	02-5	566				20021	120
ИО	324246 2002MN01			В1		2007	0917										
IN	2002MN01	666		A		2004	1211		IN	200	02-M	IN16	66			20021 20021 20021 20021 20030	121
KR	798568 20020095 2002PA11			В1		2008 2003	0128		KR	200	02-7	7158	69			20021	123
ZA	20020095	61		А		2003	1020		ZA	200	02-9	561				20021	125
MX	2002PA11	621		А		2004	0517		MX	200	02-P	PA11	621			20021	125
US	20040019	190		A1		2004	0129		US	200	03-2	966	88			20030	703
				В2		2007											
						2008										20030	
	20061377					2006										20051	
	20070179					2007			US	200	06-5	580	71			20061	109
	7335649			В2		2008											
US	20070129 7332481	338		A1		2007			US	200	) / – 6	202	60			20070	105
US	7332481	006		B2		2008				0.00	0.7. 6		0.0			00070	100
	20080090					2008							88			20070	
	20080090															20070	
	20080214			A1		2008						506				20070	
	20070872	55		A D1		2007			KK	200	J / — /	7180	36			20070	806
	847172	TNEO		В1		2008	0/1/		TTC	200	າດວ	0.70	0 1 D		D	20000	525
PKIUKII	APPLN.	TMEO	• •									2070 2289.			P D	20000	
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												857				20010	
												JS16			M W	20010	
												7158				20010	
												2966				20021	
OTHER SO	OURCE(S):			MARP.	ΑТ	136:	5987			200		. , , ,				_0000	, 00
GI							,										
_																	

Me NNH HO CO2H

AΒ Pyrazolylidenehydrazino compds. such as I were prepared as thrombopoietin mimetics. Thus, I was prepared in 5 steps, the last of which involved reaction of 4-amino-3'-hydroxy-3-biphenylcarboxylic acid hydrochloride with 1-(3,4-dimethylphenyl)-3-methyl-3-pyrazolin-5-one.

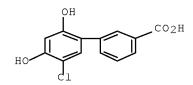
376594-19-3P ΙT

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

((pyrazolylidenehydrazino)phenol derivs. as thrombopoietin mimetics)

RN 376594-19-3 CAPLUS

[1,1'-Biphenyl]-3-carboxylic acid, 5'-chloro-2',4'-dihydroxy- (CA INDEX CN NAME)



L19 ANSWER 18 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN 2001:359840 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 134:366682

Oncolytic combinations for the treatment of cancer TITLE: INVENTOR(S): Sawyer, Jason Scott; Teicher, Beverly Ann; Beight,

Douglas Wade; Smith, Edward C. R.; McMillen, William

Thomas

PATENT ASSIGNEE(S): Eli Lilly and Company, USA SOURCE: PCT Int. Appl., 270 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT :	NO.			KIN	D	DATE		-	APPL	ICAT	ION I	.00		D.	ATE	
WO	2001	0341	98		A2	_	2001	0517	,	WO 2	000-	US30:	941		2	0001	109
WO	2001	0341	98		А3		2002	0214									
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	ВG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
		HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
		SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VN,
		YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM				
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
PRIORIT	BJ, CF, ( :.RIORITY APPLN. INFO									US 1	999-	1649	00P		P 1	9991	111
OTHER S	OURCE	(S):			MAR:	PAT	134:	3666	82								

GΙ

A method of treating cancer that comprises administering a patient ionizing AB radiation in conjunction with effective amts. of a 2',2'-difluoronucleoside anti-cancer compound and a leukotriene LTB4 inhibitor (I) [wherein X = a 5membered (un)substituted heterocycle or fused bicyclic radical consisting of a carbocyclic group fused to 2 adjacent C atoms of a 5-membered (un)substituted heterocycle; Y1 = a bond or divalent linking group containing 1-9 atoms; Y2 and Y3 = independently CH2, O, or S; Z = an acidic group; R1 = (alk)aryl, cycloalkyl, (ar)alkyl, (ar)alkenyl, alkynyl, haloalkyl, aryloxy, or alkoxy; R2 = H, halo(alkyl), alkoxy, (cyclo)alkyl, acidic group, or (CH2)1-7-acidic group; R3 = (cyclo)alkyl, (CH2)1-7-cycloalkyl, alkenyl, alkynyl, benzyl, or aryl; n = 0-6] is disclosed. Examples includes 17 syntheses, 22 formulations, and Lewis lung test results. For instance, benzylation of 1-[2-hydroxy-4-(3chloropropoxy)-5-ethylphenyl]ethanone (69%), coupling the ethanone with 2-(3hydroxy-2-propylphenoxy)benzoic acid Me ester (72%), oxidation to give the  $\alpha$ hydroxy ketone (31%), cyclization with triflic anhydride and formamide to give the oxazole (6%), debenzylation with BF3 $\bullet$ OEt2 (45%), and deesterification (92%) afforded II (R = 4-oxazolyl). Treatment of C57B1 mice with 100 mg/kg of the LTB4 antagonist, 2-[2-propyl-3-[3-[2-ethyl-5-hydroxy-4-(4fluorophenyl)phenoxy]propoxy]phenoxy]benzoic acid (II; R = 4-FC6H4), 60 mg/kgof gemcitabine HCl, and 400 Rads of radiation delayed growth of murine Lewis lung carcinoma by an average of 32.3 days, compared to a delay of 13.4 days using the gemcitabine HCl and radiation combination. In addition, the mean number of lung metastases was reduced from 11.5 to 7.0.

IT 152607-86-8, Methyl 3-[2-[4-[2-ethyl-4-(4-fluorophenyl)-5hydroxyphenoxy]-1-butenyl]phenyl]propionate 185394-53-0,
3-[2-[4-[2-Ethyl-4-(4-fluorophenyl)-5-hydroxyphenoxy]-1butenyl]phenyl]propionic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological)

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of phenoxyalkoxyphenoxybenzoic acids and analogs as leukotriene antagonists for use with 2',2'-difluoronucleoside anti-cancer agents and radiation therapy for treatment of cancer)

RN 152607-86-8 CAPLUS

CN

Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]-, methyl ester (CA INDEX NAME)

185394-53-0 CAPLUS RN

Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-CN yl)oxy]-1-buten-1-yl]- (CA INDEX NAME)

L19 ANSWER 19 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2001:359839 CAPLUS Full-text

DOCUMENT NUMBER: 134:366681

Oncolytic combinations for the treatment of cancer TITLE: Sawyer, Jason Scott; Teicher, Beverly Ann; Beight, INVENTOR(S):

Douglas Wade; Smith, Edward C. R.; McMillen, William

Thomas

PATENT ASSIGNEE(S): Eli Lilly and Company, USA SOURCE: PCT Int. Appl., 250 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PA	TENT :	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.		D	ATE	
	2001		-		A2		2001			WO 2	000-	US30	839		2	0001	109
WO	2001				А3		2002										
	W:	ΑE,	AG,	ΑL,	ΑM,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	GM,	HR,
		HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
		SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
		YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM				
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
PRIORIT	Y APP	LN.	INFO	.:						US 1	999-	1647	04P		P 1	9991	111
OTHER S	OURCE	(S):			MARI	PAT	134:	3666	81								

OTHER SOURCE(S):

GΙ

$$X \xrightarrow{OH} Y^3 \xrightarrow{(CH_2)_n} Y^2 \xrightarrow{R^3} R^2$$
 $R \xrightarrow{OH} Q$ 
 $R \xrightarrow{OH} Q$ 

A method of treating cancer with radiation in conjunction with the AΒ administration of a leukotriene LTB4 inhibitor (I) [wherein X = a 5-membered (un) substituted heterocycle or fused bicyclic radical consisting of a carbocyclic group fused to 2 adjacent C atoms of a 5-membered (un)substituted heterocycle; Y1 = a bond or divalent linking group containing 1-9 atoms; Y2 and Y3 = independently CH2, O, or S; Z = an acidic group; R1 = (alk)aryl, cycloalkyl, (ar)alkyl, (ar)alkenyl, alkynyl, haloalkyl, aryloxy, or alkoxy; R2 = H, halo(alkyl), alkoxy, (cyclo)alkyl, acidic group, or (CH2)1-7-acidic group; R3 = (cyclo)alkyl, (CH2)1-7-cycloalkyl, alkenyl, alkynyl, benzyl, or aryl; n = 0-6] is disclosed. Examples includes 17 syntheses, 7 formulations, nude mouse xenograft test results, and Lewis lung test results. For instance, benzylation of 1-[2-hydroxy-4-(3-chloropropoxy)-5-ethylphenyl]ethanone (69%),coupling the ethanone with 2-(3-hydroxy-2-propylphenoxy) benzoic acid Me ester (72%), oxidation to give the  $\alpha$ -hydroxy ketone (31%), cyclization with triflic anhydride and formamide to give the oxazole (6%), debenzylation with BF3•OEt2 (45%), and deesterification (92%) afforded II (R = 4-oxazoly1). Treatment of mice with 100 mg/kg of the LTB4 antagonist, 2-[2-propyl-3-[3-[2-ethyl-5hydroxy-4-(4- fluorophenyl)phenoxy]propoxy]phenoxy]benzoic acid (II; R = 4-FC6H4) and 400 Rads of radiation delayed growth of human DU145 prostate carcinoma by an average of 31.5 days, compared to a delay of 19.2 days using radiation alone. In the Lewis lung test, the mean number of lung metastases was reduced from 15.5 using radiation alone to 12.0 using the combination therapy.

IT 152607-86-8, Methyl 3-[2-[4-[2-ethyl-4-(4-fluorophenyl)-5 hydroxyphenoxy]-1-butenyl]phenyl]propionate 185394-53-0,
 3-[2-[4-[2-Ethyl-4-(4-fluorophenyl)-5-hydroxyphenoxy]-1 butenyl]phenyl]propionic acid
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation and use of phenoxyalkoxyphenoxybenzoic acids and analogs as leukotriene antagonists in conjunction with radiation therapy for treatment of cancer)

RN 152607-86-8 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]-, methyl ester (CA INDEX NAME)

RN 185394-53-0 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]- (CA INDEX NAME)

L19 ANSWER 20 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2001:359787 CAPLUS Full-text

DOCUMENT NUMBER: 134:366680

TITLE: Oncolytic combinations for the treatment of cancer INVENTOR(S): Fleisch, Jerome Herbert; Benjamin, Roger Stuart;

Sawyer, Jason Scott; Teicher, Beverly Ann; Beight, Douglas Wade; Smith, Edward C. R.; McMillen, William

Thomas

PATENT ASSIGNEE(S): Eli Lilly and Company, USA SOURCE: PCT Int. Appl., 283 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
	A2 20010517	WO 2000-US31039	20001109
	A3 20020214		
W: AE, AG, AL	, AM, AT, AU, AZ,	BA, BB, BG, BR, BY, B	Z, CA, CH, CN,
CR, CU, CZ	, DE, DK, DM, DZ,	EE, ES, FI, GB, GD, G	E, GH, GM, HR,
HU, ID, IL	, IN, IS, JP, KE,	KG, KP, KR, KZ, LC, L	K, LR, LS, LT,
LU, LV, MA	, MD, MG, MK, MN,	MW, MX, MZ, NO, NZ, P	L, PT, RO, RU,
SD, SE, SG	, SI, SK, SL, TJ,	TM, TR, TT, TZ, UA, U	G, US, UZ, VN,
YU, ZA, ZW			
RW: GH, GM, KE	, LS, MW, MZ, SD,	SL, SZ, TZ, UG, ZW, A	T, BE, CH, CY,
DE, DK, ES	, FI, FR, GB, GR,	IE, IT, LU, MC, NL, P	T, SE, TR, BF,
BJ, CF, CG	, CI, CM, GA, GN,	GW, ML, MR, NE, SN, T	D, TG
CA 2391416	A1 20010517	CA 2000-2391416	20001109
AU 2001015990	A 20010606	AU 2001-15990	20001109
AU 778829	B2 20041223		
BR 2000015490	A 20020709	BR 2000-15490	20001109
EP 1231938	A2 20020821	EP 2000-978535	20001109
R: AT, BE, CH	, DE, DK, ES, FR,	GB, GR, IT, LI, LU, N	L, SE, MC, PT,

IE, SI, LT,	LV,	FI, RO, MK,	CY, AL, TR		
JP 2003513916	Τ	20030415	JP 2001-536137		20001109
HU 2002004449	A2	20030428	HU 2002-4449		20001109
HU 2002004449	A3	20060228			
NZ 517667	Α	20040528	NZ 2000-517667		20001109
TR 200201245	Τ2	20040823	TR 2002-1245		20001109
ZA 2002002822	Α	20030710	ZA 2002-2822		20020410
NO 2002002245	Α	20020709	NO 2002-2245		20020510
MX 2002PA04733	Α	20020830	MX 2002-PA4733		20020510
PRIORITY APPLN. INFO.:			US 1999-164786P	P	19991111
			WO 2000-US31039	W	20001109

OTHER SOURCE(S): MARPAT 134:366680

GΙ

$$X \xrightarrow{OH} Y^3 \xrightarrow{(CH_2)_{n}} Y^2 \xrightarrow{R^3} R^2$$
 $R^3 \xrightarrow{R^4} R^2$ 
 $R^4 \xrightarrow{OH} CH_2 \xrightarrow{N} R^3$ 
 $R^4 \xrightarrow{N} R^4 \xrightarrow$ 

A method of treating cancer by administration of a 2',2'- difluoronucleoside AΒ anti-cancer compound and a leukotriene LTB4 inhibitor (I) [wherein X = a 5membered (un) substituted heterocycle or fused bicyclic radical consisting of a carbocyclic group fused to 2 adjacent C atoms of a 5-membered (un)substituted heterocycle; Y1 = a bond or divalent linking group containing 1-9 atoms; Y2 and Y3 = independently CH2, O, or S; Z = an acidic group; R1 = (alk)aryl, cycloalkyl, (ar)alkyl, (ar)alkenyl, alkynyl, haloalkyl, aryloxy, or alkoxy; R2 = H, halo(alkyl), alkoxy, (cyclo)alkyl, acidic group, or (CH2)1-7-acidic group; R3 = (cyclo)alkyl, (CH2)1-7-cycloalkyl, alkenyl, alkynyl, benzyl, oraryl; n = 0-6] is disclosed. Examples includes 17 syntheses, 22 formulations, and mouse xenograft test results. For instance, benzylation of 1-[2-hydroxy-4-(3- chloropropoxy)-5-ethylphenyl] ethanone (69%), coupling the ethanone with 2-(3-hydroxy-2-propylphenoxy)benzoic acid Me ester (72%), oxidation to give the  $\alpha$ -hydroxy ketone (31%), cyclization with triflic anhydride and formamide to give the oxazole (6%), debenzylation with BF3 • OEt2 (45%), and deesterification (92%) afforded II (R = 4-oxazolyl). Treatment of mice with 100 mg/kg of the LTB4 antagonist, 2-[2-propyl-3-[3-[2-ethyl-5- hydroxy-4-(4fluorophenyl)phenoxy]propoxy]phenoxy]benzoic acid (II; R = 4-FC6H4) and 60 mg/kg of gemcitabine HCl delayed growth of LNCaP prostate carcinoma by an average of 51.2 days, compared to a delay of 12.2 days using the gemcitabine HCl alone.

IT 152607-86-8, Methyl 3-[2-[4-[2-ethyl-4-(4-fluorophenyl)-5hydroxyphenoxy]-1-butenyl]phenyl]propionate 185394-53-0,
3-[2-[4-[2-Ethyl-4-(4-fluorophenyl)-5-hydroxyphenoxy]-1-

butenyl]phenyl]propionic acid

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of phenoxyalkoxyphenoxybenzoic acids and analogs as leukotriene antagonists for use with 2',2'-difluoronucleoside anti-cancer agents for treatment of cancer)

RN 152607-86-8 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]-, methyl ester (CA INDEX NAME)

RN 185394-53-0 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]- (CA INDEX NAME)

L19 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2001:359785 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 134:366679

TITLE: Oncolytic combinations for the treatment of cancer INVENTOR(S): Fleisch, Jerome Herbert; Sawyer, Jason Scott; Teicher, Beverly Ann; Beight, Douglas Wade; Smith, Edward C.

R.; McMillen, William Thomas

PATENT ASSIGNEE(S): Eli Lilly and Company, USA SOURCE: PCT Int. Appl., 285 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		Di	ATE	
WO 2001 WO 2001				A2 A3		2001 2002		,	WO 2	000-	US30	944		2	0001	109
W:	AE,					AU, DM,										
	HU,	ID,	IL,	IN,	IS,	JP, MK,	KE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2390789 20010517 CA 2000-2390789 20001109 Α1 EP 1231939 Α2 20020821 EP 2000-983695 20001109 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR 20030415 JP 2001-536135 JP 2003513914 20001109 PRIORITY APPLN. INFO.: US 1999-164713P Р 19991111 WO 2000-US30944 W 20001109 OTHER SOURCE(S): MARPAT 134:366679

GΙ

A method of treating cancer with therapeutic combinations of a leukotriene AΒ LTB4 inhibitor (I) [wherein X = a 5-membered (un)substituted heterocycle or fused bicyclic radical consisting of a carbocyclic group fused to 2 adjacent C atoms of a 5-membered (un) substituted heterocycle; Y1 = a bond or divalent linking group containing 1-9 atoms; Y2 and Y3 = independently CH2, O, or S; Z = an acidic group; R1 = (alk)aryl, cycloalkyl, (ar)alkyl, (ar)alkenyl, alkynyl, haloalkyl, aryloxy, or alkoxy; R2 = H, halo(alkyl), alkoxy, (cyclo)alkyl, acidic group, or (CH2)1-7-acidic group; R3 = (cyclo)alkyl, (CH2)1-7-cycloalkyl, alkenyl, alkynyl, benzyl, or aryl; n = 0-6] and an anticancer agent is disclosed. Examples includes 17 syntheses, 7 formulations, and nude mouse xenograft test results. For instance, benzylation of 1-[2hydroxy-4-(3-chloropropoxy)-5- ethylphenyl]ethanone (69%), coupling the ethanone with 2-(3-hydroxy-2-propylphenoxy)benzoic acid Me ester (72%), oxidation to give the  $\alpha$ -hydroxy ketone (31%), cyclization with triflic anhydride and formamide to give the oxazole (6%), debenzylation with BF3•OEt2 (45%), and deesterification (92%) afforded II (R = 4-oxazoly1). Treatment of mice with 200 mg/kg of the LTB4 antagonist, 2-[2-propyl-3-[3-[2-ethyl-5hydroxy-4-(4-fluorophenyl)phenoxy]propoxy]phenoxy]benzoic acid (II; R = 4-FC6H4) and 50 mg/kg of carboplatin delayed growth of human H460 non-small cell lung carcinoma by an average of 33.3 days, compared to a delay of 13.9 days using the leukotriene antagonist alone or 10.7 days using carboplatin alone. 152607-86-8, Methyl 3-[2-[4-[2-ethyl-4-(4-fluorophenyl)-5-ΙT hydroxyphenoxy]-1-butenyl]phenyl]propionate 185394-53-0,

3-[2-[4-[2-Ethy]-4-(4-fluoropheny])-5-hydroxyphenoxy]-1-

butenyl]phenyl]propionic acid

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation and use of phenoxyalkoxyphenoxybenzoic acids and analogs as leukotriene antagonists in conjunction with anti-cancer agents for treatment of cancer)

RN 152607-86-8 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]-, methyl ester (CA INDEX NAME)

RN 185394-53-0 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]- (CA INDEX NAME)

L19 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2001:45921 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 134:105650

TITLE: Use of at least a hydroxystilbene as a glycation

inhibitor in cosmetics

INVENTOR(S): Liviero, Christel; Breton, Lionel; Pageon, Herve

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
EP 1068864	A1 20010117	EP 2000-401742	20000619
EP 1068864	B1 20050209		
R: AT, BE, CH	, DE, DK, ES, FR,	GB, GR, IT, LI, LU, NL,	SE, MC, PT,
IE, SI, LT	, LV, FI, RO		
FR 2796278	A1 20010119	FR 1999-9267	19990716
FR 2796278	B1 20020503		
AT 288740	T 20050215	AT 2000-401742	20000619

ES 2237396	Т3	20050801	ES	2000-401742		20000619
CA 2314623	A1	20010116	CA	2000-2314623		20000705
CA 2314623	С	20061114				
US 6521669	В1	20030218	US	2000-617041		20000714
JP 2001058916	A	20010306	JP	2000-216709		20000717
US 20030144363	A1	20030731	US	2002-330364		20021230
PRIORITY APPLN. INFO.:			FR	1999-9267	А	19990716
			US	2000-617041	A1	20000714

OTHER SOURCE(S): MARPAT 134:105650

AB Hydroxystilbene derivs. are used in cosmetics as inhibitors of protein glycation, especially the skin proteins. Resveratrol at 10  $\mu$ M concentration decreased serum albumin glycation at 37° by 29.8%.

IT 319921-02-3, [1,1'-Biphenyl]-2,4,4',5-tetrol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(use of at least hydroxystilbene as glycation inhibitor in cosmetics) 319921-02-3 CAPLUS

CN [1,1'-Biphenyl]-2,4,4',5-tetrol (CA INDEX NAME)

RN

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 23 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1999:663075 CAPLUS Full-text

DOCUMENT NUMBER: 132:22651

TITLE: Photocatalytic degradation of 4-chlorophenol. 1. The

hydroquinone pathway

AUTHOR(S): Li, Xiaojing; Cubbage, Jerry W.; Tetzlaff, Troy A.;

Jenks, William S.

CORPORATE SOURCE: Department of Chemistry, Iowa State University, Ames,

IA, 50011-3111, USA

SOURCE: Journal of Organic Chemistry (1999), 64(23), 8509-8524

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB Complete mineralization of 4-ClC6H4OH in H2O was achieved by photocatalytic degradation of oxygenated solns. containing suspended TiO2. The chemical pathways of this degradation are complex, and in this paper, that which begins with hydroquinone is examined Hydroxylation to form 1,2,4-(HO)3C6H3 (I) is the 1st step, though a very small amount of cleavage of the C1-C2 bond is observed. The 1st major group of acyclic compds. derives from oxidative cleavage of either the C1-C2 or C3-C4 bond of I. This results from single-electron oxidation and capture by superoxide. Many smaller compds. were also identified, and routes to several of them are proposed. Nearly all of the compds. are verified by comparison with authentic samples.

IT 76625-61-1P, 2,2',4,4',5,5'-Hexahydroxybiphenyl
RL: BYP (Byproduct); PRP (Properties); PREP (Preparation)

(hydroquinone pathway in photocatalytic degradation of chlorophenol)

RN 76625-61-1 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4',5,5'-hexol (CA INDEX NAME)

REFERENCE COUNT: 109 THERE ARE 109 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L19 ANSWER 24 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1999:227404 CAPLUS Full-text

DOCUMENT NUMBER: 131:41868

TITLE: Phlorethols and fucophlorethols from the brown alga

Cystophora retroflexa

AUTHOR(S): Sailler, Birgit; Glombitza, Karl-Werner

CORPORATE SOURCE: Institut fur Pharmazeutische Biologie, Bonn, 53115,

Germany

SOURCE: Phytochemistry (1999), 50(5), 869-881

CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

The ethanolic extract of the brown alga Cystophora retroflexa has yielded three different classes of phlorotannins. Most substances belong to the classes of phlorethols and fucophlorethols. Only one, well known fucol, the difucol hexa-acetate, was isolated. Three new phlorethols and ten new fucophlorethols are described and characterized as their acetates, i.e. tetraphlorethol-E nonaacetate (I), pentaphlorethol-B undecaacetate, hexaphlorethol-A tridecaacetate, fucotriphlorethol-G dodecaacetate, fucotriphlorethol-H dodecaacetate, fucotetraphlorethol-J tetradecaacetate, fucotetraphlorethol-K tetradecaacetate, fucopentaphlorethol-E hexadecaacetate, bisfucoheptaphlorethol-A tricosaacetate, difucofucotriphloretholA octadeca-

Ι

acetate, difucofucotetraphlorethol-B icosaacetate, terfucohexaphloretholB tetracosa-acetate and terfucoheptaphlorethol-A hexacosaacetate. In addition, known compds. phloroglucinol tri-acetate, diphlorethol penta-acetate, triphlorethol-A hepta-acetate, tetraphlorethol-C nona-acetate, difucol hexacetate, fucophlorethol-B octa-acetate, fucodiphlorethol-D deca-acetate, fucotriphlorethol-B dodeca-acetate, fucotetra-phlorethol-B tetradeca-acetate, bisfucotriphlorethol-A pentadeca-acetate, bisfucotetraphlorethol-A heptadeca-acetate, bisfucopentaphlorethol-B nonadeca-acetate, difucophlorethol-A undeca-acetate,

difucofucotetraphlorethol-A icosa-acetate, terfucopentaphlorethol-A docosa-acetate and terfucohexaphlorethol-A tetracosa-acetate were identified. 227085-64-5P 227085-67-8P, Difucofucotetraphlorethol B

eicosaacetate 227085-69-0P, Terfucohexaphlorethol B tetracosaacetate 227085-73-6P, Terfucoheptaphlorethol A hexacosaacetate

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(isolation and mol. structure of phlorethols and fucophlorethols from the brown alga Cystophora retroflexa)

RN 227085-64-5 CAPLUS

ΙT

CN [1,1'-Biphenyl]-2,2',4,4',5-pentol, 3'-[3,5-bis(acetyloxy)-2-[3,5-bis(acetyloxy)phenoxy]-6'-[2,4,6-tris(acetyloxy)phenoxy]-, 2,2',4,4',5-pentaacetate (CA INDEX NAME)

RN 227085-67-8 CAPLUS

CN [1,1':3',1''-Terphenyl]-2,2',2'',4,4',4'',6,6',6''-nonol, 3-[5-(acetyloxy)-2-[3,5-bis(acetyloxy)phenoxy]-3-[[2,2',4,4',5'-pentakis(acetyloxy)-6-[2,4,6-tris(acetyloxy)phenoxy][1,1'-biphenyl]-3-yl]oxy]phenoxy]-, nonaacetate (9CI) (CA INDEX NAME)

RN 227085-69-0 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4',5,6'-hexol, 3'-[5-(acetyloxy)-2-[3,5-bis(acetyloxy)-4-[[2',4,4',6,6'-pentakis(acetyloxy)-5-[3,5-bis(acetyloxy)phenoxy][1,1'-biphenyl]-2-yl]oxy]phenoxy]-3-[[2,2',4,4',6'-pentakis(acetyloxy)-6-[2,4,6-tris(acetyloxy)phenoxy][1,1'-biphenyl]-3-yl]oxy]phenoxy]-, hexaacetate (9CI) (CA INDEX NAME)

PAGE 1-B

\_\_OAc

RN 227085-73-6 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4',5,6'-hexol, 3'-[5-(acetyloxy)-2-[3,5-bis(acetyloxy)-4-[5-(acetyloxy)-2-[3,5-bis(acetyloxy)phenoxy]-3-

[[2,2',4,4',6'-pentakis(acetyloxy)-6-[2,4,6-tris(acetyloxy)phenoxy][1,1'-biphenyl]-3-yl]oxy]phenoxy]phenoxy]-3-[[2,2',4,4',6,6'-hexakis(acetyloxy)[1,1'-biphenyl]-3-yl]oxy]phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-B

ΙT

(Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(isolation and mol. structure of phlorethols and fucophlorethols from the brown alga Cystophora retroflexa)

RN 227085-68-9 CAPLUS

CN

[1,1'-Biphenyl]-2,2',4,4',5,6'-hexol, 3'-[5-(acetyloxy)-2-[3,5-bis(acetyloxy)-4-[[2',4,4',6,6'-pentakis(acetyloxy)-5-[3,5-bis(acetyloxy)phenoxy][1,1'-biphenyl]-2-yl]oxy]phenoxy]-3-[[2,2',4,4',6,6'-hexakis(acetyloxy)[1,1'-biphenyl]-3-yl]oxy]phenoxy]-, hexaacetate (9CI) (CA INDEX NAME)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 25 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:53684 CAPLUS Full-text DOCUMENT NUMBER: 126:74591

ORIGINAL REFERENCE NO.: 126:14433a,14436a

TITLE: Preparation of biphenylyloxyalkylarenes as leukotriene

antagonists for the treatment or prevention of

Alzheimer's disease.

Altstiel, Larry Douglas; Fleisch, Jerome Herbert INVENTOR(S):

PATENT ASSIGNEE(S): Eli Lilly and Co., USA SOURCE: Eur. Pat. Appl., 124 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA.	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION :	NO.		D.	ATE		
EP	7430	 64			A1	_	1996	1120		 EP 1	 996-	3033	 46		1	9960	513	
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	ΙΤ,	LI,	LU,	NL,	PT,	SE
WO	9636	347			A1		1996	1121		WO 1	996-	US67	73		1	9960	513	
	W:	AL,	AM,	ΑU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CN,	CZ,	EE,	GE,	HU,	IS,	JP,	
		KΕ,	KG,	KP,	KR,	KΖ,	LK,	LR,	LS,	LT,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	
		NO,	NΖ,	PL,	RO,	RU,	SD,	SG,	SI,	SK,	ΤJ,	TM,	TR,	TT,	UA,	UG,	UZ,	
		VN,	AM															
	RW:	KΕ,	LS,	MW,	SD,	SZ,	UG,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	ML,	MR,	
		ΝE,	SN,	TD,	TG													
AU	9658	572			Α		1996	1129		AU 1	996-	5857	2		1	9960.	513	
PRIORIT	Y APP	LN.	INFO	.:						US 1	995-	4431	79		A 1	9950	517	
										WO 1	996-	US67	73		W 1	9960	513	
OTHER SO	OURCE	(S):			MAR	PAT	126:	7459	1									

Ι

GΙ

$$\mathbb{R}^2$$
 HO  $\mathbb{R}^2$   $\mathbb{R}^2$ 

AΒ Use of compds. having leukotriene antagonist activity, e.g., title compds. [I; R1 = alkyl, alkenyl, alkynyl, alkoxy, alkylthio, halo, R2-substituted Ph; R2, R3 = H, halo, OH, alkyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, CF3, dialkylamino; X = O, S, CO, CH2; Y = O, CH2; XY = CH:CH, C.tplbond.C; Z = alkylene; A = bond, O, S, CH:CH, etc.; R4 = (substituted) (hetero)aryl; with provisos] for manufacture of a medicament for treating or preventing Alzheimer's disease is claimed. Thus, 5-hydroxybenzopyran-2-one and 3-(2ethyl-4-(4-fluorophenyl)-5- benzyloxyphenyl)propyl iodide were stirred with

NaH in Me2SO to give 5-[3-(2-ethyl-4-(4-fluorophenyl)-5-benzyloxyphenyl) propoxy]benzopyran-2- one. This was converted to title compound (II), which displaced [3H]-LTB4 from guinea pig lung membrane prepns. with pKi = 9.01. I drug formulations are given.

IT 152607-86-8P 185394-53-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of biphenylyloxyalkylarenes as leukotriene antagonists for the treatment or prevention of Alzheimer's disease)

RN 152607-86-8 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]-, methyl ester (CA INDEX NAME)

RN 185394-53-0 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]- (CA INDEX NAME)

L19 ANSWER 26 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1995:747633 CAPLUS Full-text

DOCUMENT NUMBER: 123:339852

ORIGINAL REFERENCE NO.: 123:60995a,60998a

TITLE: Chemistry of modified flavonoids. 18. Thiazole analogs

of isoflavones. Homologous and isomeric series

AUTHOR(S): Gorbulenko, N. V.; Turov, A. V.; Khilya, V. P.

CORPORATE SOURCE: Kiev. Univ., Ukraine

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1995), (4),

505-13

CODEN: KGSSAQ; ISSN: 0132-6244

PUBLISHER: Latviiskii Institut Organicheskogo Sinteza

DOCUMENT TYPE: Journal LANGUAGE: Russian

GΙ

AB Thiazole analogs of isoflavones, e.g., I (R = alkyl; R1 = H, CHMeCOOEt), were prepared from alkyldihydroxy derivs. of  $\alpha$ -(4-methyl-2- thiazolyl)acetophenone. The products were tested for hypolipidemic, hypoglycemic, and analeptic activity.

IT 170466-79-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(thiazole analogs of isoflavones)

RN 170466-79-2 CAPLUS

CN Ethanone, 1-(4,6-dihydroxy[1,1'-biphenyl]-3-yl)-2-(4-methyl-2-thiazolyl)-(CA INDEX NAME)

L19 ANSWER 27 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1994:244331 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 120:244331

ORIGINAL REFERENCE NO.: 120:43289a,43292a

TITLE: Substituted phenyl phenol leukotriene antagonists
INVENTOR(S): Baker, Stephen Richard; Dillard, Robert Delane;
Floreancig, Paul Edward; Sawyer, Jason Scott;

Schmittling, Elisabeth Andree; Sofia, Michael Joseph

PATENT ASSIGNEE(S): Eli Lilly and Co., USA SOURCE: Eur. Pat. Appl., 119 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
EP 544488	A2 19930602	EP 1992-310705	19921123
EP 544488	A3 19930728		
EP 544488	B1 19980311		
R: AT, BE, CH	, DE, DK, ES, FR,	GB, GR, IE, IT, LI, LU,	, NL, PT, SE
ZA 9209051	A 19940523	ZA 1992-9051	19921123
HU 66023	A2 19940829	HU 1992-3666	19921123
HU 222486	B1 20030728		
CZ 280133	B6 19951115	CZ 1992-3460	19921123
CZ 280135	B6 19951115	CZ 1994-2766	19921123

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	163914	T	19980315		1992-310705		19921123
ES	2116324	Т3	19980716	ES	1992-310705		19921123
IL	116942	A	20000229	IL	1992-116942		19921123
IL	103847	A	20000601	IL	1992-103847		19921123
CA	2083639	A1	19930526	CA	1992-2083639		19921124
CA	2083639	С	20001121				
NO	9204523	A	19930526	NO	1992-4523		19921124
NO	180044	В	19961028				
NO	180044	С	19970205				
AU	9228573	A	19930527	AU	1992-28573		19921124
AU	658023	B2	19950330				
BR	9204527	A	19930720	BR	1992-4527		19921124
RU	2095340	C1	19971110	RU	1992-4509		19921124
JP	05286852	A	19931102	JΡ	1992-314973		19921125
JP	3417582	В2	20030616				
CN	1088906	A	19940706	CN	1993-100106		19930102
CN	1035001	С	19970528				
US	5462954	A	19951031	US	1994-333122		19941101
PRIORIT	Y APPLN. INFO.:			US	1991-797522	Α	19911125
				US	1991-797646	Α	19911125
				ΙL	1992-103847	АЗ	19921123

OTHER SOURCE(S): MARPAT 120:244331

GΙ

The title compds., 1,1'-biphenyl-2-ol derivs. I (R1 = alkyl, alkenyl, etc.; R2, R3 = H, alkyl, alkoxy, etc.; R4 = alkylsulfonyl, trifluoromethyl, alkylamino; X = oxygen, sulfur, methylene, carbonyl; Y = oxygen, methylene, etc.; S = bond, alkanediyl; Y = oxygen, sulfur, alkenediyl, etc.) and their uses as leukotriene antagonists are claimed. I are selective leukotriene B4 antagonists, i.e. they are useful as inflammation inhibitors, antiallergics, and antiasthmatics. Debenzylation of 2-methyl-2-(1H-tetrazol-5-yl)-7-[2-ethyl-4-(4-fluorophenyl)]-5- [(benzyloxy)phenoxy]heptane (prepared in several steps) gave 2-methyl-2-(1H-tetrazol-5-yl)-7-[2-ethyl-4-(4-fluorophenyl)]-5- hydroxyphenoxyheptane (II), [i.e. 4-ethyl-3'-fluoro-5-[[6-methyl-6-(1H-tetrazol-5-yl)heptyl]oxy]-1,1'biphenyl-2-ol]. II inhibited leukotrienes B4 in pig lung membrane with a pKi of 8.52.

IT 152607-86-8P 152607-87-9P 152608-72-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as as selective leukotriene B4 antagonist (inflammation inhibitor, antiallergic))

RN 152607-86-8 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-buten-1-yl]-, methyl ester (CA INDEX NAME)

RN 152607-87-9 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-butenyl]-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 152608-72-5 CAPLUS

CN Benzenepropanoic acid, 2-[4-[(5-ethyl-4'-fluoro-2-hydroxy[1,1'-biphenyl]-4-yl)oxy]-1-butenyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L19 ANSWER 28 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1991:631969 CAPLUS Full-text

DOCUMENT NUMBER: 115:231969

ORIGINAL REFERENCE NO.: 115:39521a,39524a

TITLE: Biphenyltetrols and dibenzofuranones from oxidative

coupling of resorcinols with 4-alkylpyrocatechols:

 $\ensuremath{\mathsf{new}}$  clues to the mechanism of insect cuticle

sclerotization

AUTHOR(S): Miessner, Merle; Crescenzi, Orlando; Napolitano,

Alessandra; Prota, Giuseppe; Andersen, Svend Olav;

Peter, Martin G.

CORPORATE SOURCE: Inst. Org. Chem. Biochem., Univ. Bonn, Bonn, D-5300/1,

Germany

SOURCE: Helvetica Chimica Acta (1991), 74(6), 1205-12

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

AB Oxidation of 4-alkylpyrocatechols I (R = Me, AcNHCH2CH2, NH2CH2CH2CONHCH2CH2) by means of an insect diphenoloxidase (laccase) or K2[Fe(CN)6] yields, in the presence of resorcinols II (R1 = H, Me; R2 = H, Et, NH2CH2CH2, O2NCH:CH, AcNHCH2CH2), complex mixts. of products from which biphenyltetrols III and dibenzofuranones IV and V (R3 = Me, AcNHCH2CH2) were isolated. It is suggested that similar homo-coupling products are formed from pyrocatechols I (R = Me, NH2CH2CH2CONHCH2CH2) in insects during cuticle sclerotization.

RL: FORM (Formation, nonpreparative); PREP (Preparation) (formation of, in diphenoloxidase catalyzed oxidative coupling of alkylpyrocatechols with resorcinols)

RN 136985-18-7 CAPLUS

136985-18-7P

ΙT

CN Acetamide, N-[2-(5'-ethyl-2',4,4',5-tetrahydroxy[1,1'-biphenyl]-2-yl)ethyl]- (CA INDEX NAME)

AUTHOR(S):

L19 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1991:41833 CAPLUS Full-text

DOCUMENT NUMBER: 114:41833

ORIGINAL REFERENCE NO.: 114:7281a,7284a

TITLE: Electrochemical studies on the oxidation of

o-diphenols in the presence of ammonia Matysik, Jerzy; Przegalinski, Marek

CORPORATE SOURCE: Inst. Chem., M. Curie-Sklodowska Univ., Lublin, 20031,

Pol

SOURCE: Polish Journal of Chemistry (1990), 64(1-6), 339-44

CODEN: PJCHDQ; ISSN: 0137-5083

DOCUMENT TYPE: Journal LANGUAGE: English

AB Oxidation by O2 of catechol in the buffer solution NH4NO3 + NH3, studied polarog, gave 2,4,5-(HO)3C6H2C6H2(OH)2NH2-4,5,2. Other products may also be

present.

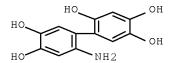
IT 131303-14-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 131303-14-5 CAPLUS

CN [1,1'-Biphenyl]-2,3',4,4',5-pentol, 6'-amino- (CA INDEX NAME)



L19 ANSWER 30 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1989:571109 CAPLUS Full-text

DOCUMENT NUMBER: 111:171109

ORIGINAL REFERENCE NO.: 111:28429a,28432a

TITLE: Antibiotics from algae. XXXIX. Phlorotannins from

the brown alga Analipus japonicus

AUTHOR(S): Glombitza, K. W.; Zieprath, G.

CORPORATE SOURCE: Inst. Pharm. Biol., Univ. Bonn, Bonn, D-5300, Fed.

Rep. Ger.

SOURCE: Planta Medica (1989), 55(2), 171-5

CODEN: PLMEAA; ISSN: 0032-0943

DOCUMENT TYPE: Journal LANGUAGE: English

AB New phloroglucinol derivs. were isolated from the ethanolic extract of A. japonicus, a north Pacific brown alga. Most of the compds. are fucols, i.e. phlorotannins in which the phloroglucinol units are connected by biaryl bonds. The following were identified: difucol, trifucol, and tetrafucol A and B, 2 atropisomeric pentafucols, 4 atropisomeric hexafucols, a heptafucol mixture, bromo- and chlorotrifucol, 5'-bromo- and 5'-chlorotetrafucol-A and 5'-bromo- and 5'-chloropentafucol A. Three other phlorotannin derivs. belong to the phlorethol and fucophlorethol groups, resp.

IT 123154-77-8P

RN 123154-77-8 CAPLUS

L19 ANSWER 31 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1984:610801 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 101:210801

ORIGINAL REFERENCE NO.: 101:31931a,31934a

TITLE: Oxidative coupling of phloroacetophenone dimethyl

ether, resacetophenone and resacetophenone monomethyl

ether using silica-bound ferric chloride

AUTHOR(S): Parthasarathy, M. R.; Gupta, Sushma

CORPORATE SOURCE: Dep. Chem., Univ. Delhi, Delhi, 110 007, India SOURCE: Indian Journal of Chemistry, Section B: Organic

Chemistry Including Medicinal Chemistry (1984),

23B(3), 227-30

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal LANGUAGE: English

AB Oxidative C-C coupling of phloroacetophenone di-Me ether (I), resacetophenone mono-Me ether and resacetophenone with FeCl3-SiO2 yields dimers. While I affords only 1 dimer, all 3 possible dimers are obtained from the other 2 starting compds. The dimers have been converted into the biflavones by standard methods.

IT 23080-53-7P 93108-00-0P 93108-01-1P 93108-02-2P

RN 23080-53-7 CAPLUS

CN Ethanone, 1,1'-(4,4',6,6'-tetrahydroxy[1,1'-biphenyl]-3,3'-diyl)bis- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OH} \\ \text{OH} \\ \text{OH} \end{array}$$

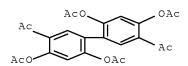
RN 93108-00-0 CAPLUS CN Ethanone, 1,1'-(2,4',6,6'-tetrahydroxy[1,1'-biphenyl]-3,3'-diyl)bis- (9CI) (CA INDEX NAME)

RN 93108-01-1 CAPLUS

CN Ethanone, 1,1'-[2,4',6,6'-tetrakis(acetyloxy)[1,1'-biphenyl]-3,3'-diyl]bis-(9CI) (CA INDEX NAME)

RN 93108-02-2 CAPLUS

CN Ethanone, 1,1'-[4,4',6,6'-tetrakis(acetyloxy)[1,1'-biphenyl]-3,3'-diyl]bis-(9CI) (CA INDEX NAME)



L19 ANSWER 32 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1981:476888 CAPLUS Full-text

DOCUMENT NUMBER: 95:76888

ORIGINAL REFERENCE NO.: 95:12986h,12987a

TITLE: Fungal pigments. 38. Metabolites of

1,2,4-trihydroxybenzene from fruiting bodies of Gomphidius maculatus and G. glutinosus (Boletales)

AUTHOR(S): Jaegers, Erhard; Steffan, Bert; Von Ardenne, Renata;

Steglich, Wolfgang

CORPORATE SOURCE: Inst. Org. Chem. Biochem., Univ. Bonn, Bonn, D-5300,

Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Naturforschung, C: Journal of

Biosciences (1981), 36C(5-6), 488-9

CODEN: ZNCBDA; ISSN: 0341-0382

DOCUMENT TYPE: Journal LANGUAGE: German

GΙ

AB From fruiting bodies of Gomphidus 2,2',4,4',5,5'-hexahydroxybiphenyl and a red pigment, gomphilactone (I), were isolated. The latter may be derived biogenically from 1,2,4-trihydroxybenzene via oxidative dimerization to 3,5'-dihydroxydibenzoquinone followed by Posternak rearrangement.

IT 76625-61-1

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(of Gomphidius)

RN 76625-61-1 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4',5,5'-hexol (CA INDEX NAME)

Ι

L19 ANSWER 33 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1981:80497 CAPLUS Full-text

DOCUMENT NUMBER: 94:80497

ORIGINAL REFERENCE NO.: 94:13083a,13086a

TITLE: Antimicrobial metabolites of the marine sponge

Axinella polycapella

AUTHOR(S): Wratten, S. J.; Meinwald, J.

CORPORATE SOURCE: Dep. Chem., Cornell Univ., Ithaca, NY, USA

SOURCE: Experientia (1981), 37(1), 13-14 CODEN: EXPEAM; ISSN: 0014-4754

DOCUMENT TYPE: Journal LANGUAGE: English

GI

AB Exts. of A. polycapella contain 1,2,4-trihydroxybenzene (I) and 2,2',4,4',5,5'-hexahydroxybiphenyl (II) as antimicrobial constituents. Methods of synthesizing II by oxidative dimerization of I were examined

IT 76625-61-1

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(of sponge, bactericidal activity of)

RN 76625-61-1 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4',5,5'-hexol (CA INDEX NAME)

L19 ANSWER 34 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1978:423960 CAPLUS Full-text

DOCUMENT NUMBER: 89:23960

ORIGINAL REFERENCE NO.: 89:3717a,3720a
TITLE: Arylsulfonium salts

INVENTOR(S): Winkler, Adolf

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 45 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				_	
DE 2644591	A1	19780406	DE 1976-2644591		19761002
US 4120866	A	19781017	US 1977-833927		19770916
GB 1539481	A	19790131	GB 1977-40328		19770928
NL 7710678	A	19780404	NL 1977-10678		19770929
BE 859224	A1	19780330	BE 1977-56302		19770930
JP 53044533	A	19780421	JP 1977-117800		19770930
FR 2366273	A1	19780428	FR 1977-29553		19770930
PRIORITY APPLN. INFO.:			DE 1976-2644591	Α	19761002
OTHER COHROLLON.	MADDATE	00.0000			

OTHER SOURCE(S): MARPAT 89:23960

AB Arylsulfonium salts were prepared by heating RH (R = aromatic, heteroarom) with R1R2SO (R1, R2 = aliphatic, aromatic; SR1R2 = heterocyclic) in HF. Thus equimolar amts. of PhMe, Me2SO and HF were heated to  $70^{\circ}$  for 10 h to give 4-MeC6H4S+Me2ClO-4, which was heated with KOH to give 4-MeC6H4SMe.

IT 66624-12-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and decomposition of)

RN 66624-12-2 CAPLUS

CN Sulfonium, dimethyl(4,4',6-trihydroxy[1,1'-biphenyl]-3-yl)-, fluoride (9CI) (CA INDEX NAME)

• F-

IT 66624-13-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 66624-13-3 CAPLUS

CN [1,1'-Biphenyl]-2,4,4'-triol, 5-(methylthio)- (CA INDEX NAME)

L19 ANSWER 35 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1978:152227 CAPLUS Full-text

DOCUMENT NUMBER: 88:152227

ORIGINAL REFERENCE NO.: 88:23977a,23980a TITLE: Dihydroxybenzenes

INVENTOR(S): Kiyoura, Tadamitsu; Kogure, Yasuo PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

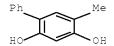
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				_	
JP 52151133	A	19771215	JP 1976-66417		19760609
PRIORITY APPLN. INFO.:			JP 1976-66417	Α	19760609
GI					

Dihydroxybenzenes I (R, R1 = H, H; Me, H; Me, Ph; resp.) were prepared by contacting MeCOCHRCH2CHR1CONH2 with dehydrogenation catalysts. Thus, 30 mL kieselguhr containing 15 weight% Ni and 5 weight% Cr was activated by passing 1:9 H-N 5 h at 400° and a 0.21 g/mL-catalyst gaseous mixture of 1:3:3.2 M MeCO(CH2)3CONH2 (II)-H-N passed 2 h at 335-40° to trap a reaction mixture of unreacted II 79, resorcinol (product) 7, dihydroresorcinol 4.2, and PhOH 1.2 weight%.

IT 66224--77-9P

RN 66224-77-9 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-methyl- (CA INDEX NAME)



L19 ANSWER 36 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1976:114149 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 84:114149

ORIGINAL REFERENCE NO.: 84:18480h, 18481a

TITLE: Photographic material for the color diffusion transfer

process

INVENTOR(S): Tsubota, Motohiko; Fuseya, Yoshiharu PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Ger. Offen., 62 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				_	
DE 2459059	A1	19750626	DE 1974-2459059		19741213
JP 50092134	A	19750723	JP 1973-140966		19731213
PRIORITY APPLN. INFO.:			JP 1973-140966	Α	19731213

Polyhydroxybenzenes are described for use as auxiliary developers in color AΒ diffusion-transfer photog. materials containing dye developers. These auxiliary developers, which may be incorporated into the dye-developercontaining layer, the Ag halide emulsion layer, an interlayer, or a protective layer, prevent the seepage of the dye developer into the receptor layer; hence images with a satisfactorily high maximum d. in the shadow areas and a satisfactorily low min. d. in the highlight areas can be obtained. Especially useful as an auxiliary developer is 1,2,4-trihydroxy-5-(4-butylphenyl)benzene (I), which is used with a dispersing agent, such as C6H13MeCONCH2CHMeCO2H. Thus, a cellulose acetate support coated with a cyan dye-developer layer, a red-sensitive gelatin-Ag(Br,I) emulsion layer, a gelatin interlayer containing I, a magenta dye-developer layer; a green-sensitive gelatin-Ag(Br,I) emulsion layer, a gelatin interlayer containing I; a yellow dye developer layer, a blue-sensitive gelatin Ag(Br,I) emulsion layer, and a I-containing gelatin protective layer was exposed through an optical wedge, processed with an alkali processing solution, and contacted with a receptor sheet composed of a

gelatin layer containing poly(4-vinylpyridine) and 1-phenyl-5-mercaptotetrazole on a baryta paper to give a blue-filter Dmin, a green-filter Dmin, and a red-filter Dmin of 0.38, 0.40, and 0.32, resp., vs. 0.52, 0.49, and 0.48, resp., for a I-free control.

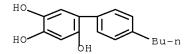
IT 58608-08-5

RL: USES (Uses)

(photog. auxiliary developer, for color diffusion-transfer materials containing dye developers)

RN 58608-08-5 CAPLUS

CN [1,1'-Biphenyl]-2,4,5-triol, 4'-butyl- (CA INDEX NAME)



L19 ANSWER 37 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1975:155656 CAPLUS Full-text

DOCUMENT NUMBER: 82:155656

ORIGINAL REFERENCE NO.: 82:24829a,24832a

TITLE: Thiele-Winter acetoxylation of quinones. VI.

Methoxy- and hydroxyphenyl-1,4-benzoquinones and

(4-substituted phenyl)-1,4-benzoquinones

AUTHOR(S): Blatchly, John M.; Green, Richard J. S.; McOmie, John

F. W.; Saleh, Sadig A.

CORPORATE SOURCE: Ipswich Sch., Ipswich, UK

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1972-1999)

(1975), (4), 309-14

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal LANGUAGE: English

GI For diagram(s), see printed CA Issue.

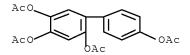
AB (Addnl. data considered in abstracting and indexing are available from a source cited in the original document). The benzoquinones I (R = MeO, OH, R1 = R2 = H, R3 = Ph; R = MeO, R1 = Ph, R2 = R3 = H; R = OH, R1 = R3 = H, R2 = Ph; R = p-02NC6H4, p-BrC6H4, p-HOC6H4, p-AcOC6H4, R1 = R2 = R3 = H) underwent Thiele-Winter acetoxylation. The inserted AcO group always entered either ortho or para to the aryl group and never ortho to the HO or MeO group. Thus acetyoxylation of I (R = OH, R1 = R2 = H, R3 = Ph) gave 30% biphenyl II.

IT 55815-13-9P 55852-45-4P

RN 55815-13-9 CAPLUS

CN [1,1'-Biphenyl]-2,4,5-triol, 4'-bromo-, triacetate (9CI) (CA INDEX NAME)

RN 55852-45-4 CAPLUS
CN [1,1'-Biphenyl]-2,4,4',5-tetrol, tetraacetate (9CI) (CA INDEX NAME)



L19 ANSWER 38 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1974:95784 CAPLUS Full-text

DOCUMENT NUMBER: 80:95784

ORIGINAL REFERENCE NO.: 80:15403a,15406a

TITLE: Complex dibenzofurans. XIV. Acid-catalyzed

demethylation and dehydration of some

tetramethoxyterphenyls

AUTHOR(S): Pring, Brian G.

CORPORATE SOURCE: Res. Dev. Lab., Astra Lakemedel AB, Sodertalje, Swed. SOURCE: Acta Chemica Scandinavica (1947-1973) (1973), 27(10),

3873-80

CODEN: ACSAA4; ISSN: 0001-5393

DOCUMENT TYPE: Journal LANGUAGE: English

GI For diagram(s), see printed CA Issue.

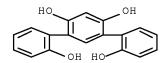
The reactions of 2,4',6',2''-tetramethoxy-m-terphenyl, 2,2',5',2''-tetramethoxy-p-terphenyl (I), and 2,2',3',2''-tetramethoxy-p-terphenyl (II) with refluxing HBr were investigated. All three compds. were rapidly demethylated to the corresponding tetrahydroxyterphenyls, but only the polyphenol from I underwent facile dehydration to give first a dibenzofuran (III), then a benzobisbenzofuran (IV) as the final product. No ring-closure product was formed from II. These observations are discussed in the light of the resonance structures of the reaction intermediates.

IT 51560-18-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (dehydration of, ring closure by)

RN 51560-18-0 CAPLUS

CN [1,1':3',1''-Terphenyl]-2,2'',4',6'-tetrol (9CI) (CA INDEX NAME)



L19 ANSWER 39 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1969:449462 CAPLUS Full-text

DOCUMENT NUMBER: 71:49462
ORIGINAL REFERENCE NO.: 71:9073a,9076a

TITLE: Synthesis of some acetylbiphenyl derivatives and the

Beckmann rearrangement of their oximes

AUTHOR(S): Kanakalakshmi, B.; Sethna, Suresh CORPORATE SOURCE: M. S. Univ. Baroda, Baroda, India

SOURCE: Journal of the Indian Chemical Society (1969), 46(5),

444-50

CODEN: JICSAH; ISSN: 0019-4522

DOCUMENT TYPE: Journal LANGUAGE: English

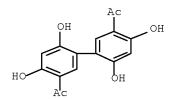
GI For diagram(s), see printed CA Issue.

The Fries migration of 2,2'-diacetoxy- and 2,2'4,4'-tetraacetoxybiphenyl (I) and the Friedel-Crafts acetylation of 2,2'-dihydroxy-, 2,2',4,-4'-tetrahydroxy-, 2,2'- and 4,4'-dimethoxy, 2,2',4,4'- and 2,2',-5,5'-tetramethoxybiphenyl were studied. The acetyl derivs. were oxidized to acids of known structure. The dioximes of the diacetyl derivs. on Beckmann rearrangement with PPA [polyphosphoric acid] gave the diacetamido derivs., which on hydrolysis gave the diamino derivs., also prepared by reduction of the dinitro compds., which were prepared from the methoxybiphenyls by nitration.

IT 23080-53-7P

RN 23080-53-7 CAPLUS

CN Ethanone, 1,1'-(4,4',6,6'-tetrahydroxy[1,1'-biphenyl]-3,3'-diyl)bis- (9CI) (CA INDEX NAME)



L19 ANSWER 40 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1968:2670 CAPLUS Full-text

DOCUMENT NUMBER: 68:2670
ORIGINAL REFERENCE NO.: 68:491a,494a

TITLE: Thiele acetylation of substituted benzoquinones AUTHOR(S): Wilgus, Herbert S., III; Gates, John W., Jr.

CORPORATE SOURCE: Eastman Kodak Co., Rochester, NY, USA

SOURCE: Canadian Journal of Chemistry (1967), 45(17), 1975-80

CODEN: CJCHAG; ISSN: 0008-4042

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 68:2670
GI For diagram(s), see printed CA Issue.

AB The treatment of substituted quinones with (MeCO)20 under acid catalysis gives substituted triacetoxybenzenes (I). Previous work on this reaction is summarized, and the reaction was extended to include quinones having electron-withdrawing groups, and 2 quinones which were previously reported as inactive.

IT 18477-15-1P 18477-16-2P

RN 18477-15-1 CAPLUS

CN 2,4,5-Biphenyltriol, 3',5'-dichloro-4'-methoxy-, triacetate (8CI) (CA INDEX NAME)

RN 18477-16-2 CAPLUS CN 2,4,5-Biphenyltriol, triacetate (8CI) (CA INDEX NAME)

L19 ANSWER 41 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1965:445882 CAPLUS Full-text

DOCUMENT NUMBER: 63:45882
ORIGINAL REFERENCE NO.: 63:8237a-c

TITLE: Synthesis of resorcinol polycarbonates

AUTHOR(S): Raudsepp, H.

SOURCE: Tr. Tallinsk. Politekhn. Inst., Ser. A (1964), No.

210, 25-36

From: Ref. Zh., Khim. 1965, Abstr. No. 4S217.

DOCUMENT TYPE: Journal LANGUAGE: Russian

Synthesis of polyesters of carbonic acid was studied by a method of AΒ phosgenation with the use of resorcinol (I) as a model substance. The expts. were conducted to determine the suitability of the given method for preparing polycarbonates from a complex mixture of diatomic phenols from shale tar. Phosgenation was done in a solution of NaHCO3, Na2CO3(II), and NaOH, in pyridine, and in the case of heterophase polycondensation, in the presence of chlorinated or aromatic hydrocarbons (dichloromethane, chloroform, tetrachloromethane, dichloroethane, benzene, toluene, and m-xylene). I (5.506 q.) was treated with phosque at a rate of 0.1-0.2 q./min. and the reactants mixed 15-30 min. (1-2 hrs. in the case of organic solvents); the total time was 45-60 min. (1.5-2 hrs. in the case of heterophase polycondensation). The residue was filtered off, washed with H2O, dried in air at  $40-50^{\circ}$ , and the yield of resorcinol carbonate, moisture content, m.p., and Cl and I contents were determined The highest resorcinol polycarbonate yield (90% I entered into the reaction) was obtained in a II solution at a mol. ratio of II-I of 2:1 with a 10-20% excess of phosgene. 30 references.

IT 2657-38-7P, 3,3'-Biphenyldicarboxaldehyde, 4,4',6,6'-tetrahydroxy-2657-40-1P, 3,3'-Biphenyldicarboxylic acid, 4,4',6,6'-tetrahydroxy-, dimethyl ester, tetraacetate 2657-41-2P, 2,2',4,4'-Biphenyltetrol, 5,5'-dimethyl-2811-45-2P, 3,3'-Biphenyldicarboxaldehyde, 4,4',6,6'-tetrahydroxy-, tetraacetate 2928-92-9P, 3,3'-Biphenyldicarboxylic acid, 4,4',6,6'-tetrahydroxy-

, tetraacetate

RL: PREP (Preparation)
 (preparation of)

RN 2657-38-7 CAPLUS

CN 3,3'-Biphenyldicarboxaldehyde, 4,4',6,6'-tetrahydro- (8CI) (CA INDEX NAME)

RN 2657-40-1 CAPLUS

CN 3,3'-Biphenyldicarboxylic acid, 4,4',6,6'-tetrahydroxy-, dimethyl ester, tetraacetate (7CI, 8CI) (CA INDEX NAME)

RN 2657-41-2 CAPLUS

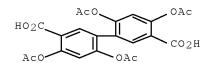
CN [m,m'-Bitolyl]-4,4',6,6'-tetrol (8CI) (CA INDEX NAME)

RN 2811-45-2 CAPLUS

CN [1,1'-Biphenyl]-3,3'-dicarboxaldehyde, 4,4',6,6'-tetrakis(acetyloxy)- (CA INDEX NAME)

RN 2928-92-9 CAPLUS

CN [1,1'-Biphenyl]-3,3'-dicarboxylic acid, 4,4',6,6'-tetrakis(acetyloxy)- (CA INDEX NAME)



L19 ANSWER 42 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1965:445881 CAPLUS Full-text

DOCUMENT NUMBER: 63:45881

ORIGINAL REFERENCE NO.: 63:8236h,8237a

TITLE: The chemistry of fungi. XLVIII. Some derivatives of

2,2',4,4'-tetrahydroxybiphenyl

AUTHOR(S): ApSimon, J. W.; Creasey, N. G.; Marlow, W.; Sim, K.

Y.; Whalley, W. R.

CORPORATE SOURCE: Univ. London

SOURCE: Journal of the Chemical Society (1965), (July),

4156-63

CODEN: JCSOA9; ISSN: 0368-1769

DOCUMENT TYPE: Journal LANGUAGE: English

AB cf. CA 63, 6956f. Syntheses are described of various 3-acetyl-, 3-ethyl-, 3,3'-diacetyl-, and 3,3'-diethyl-2,2',4,4'-tetrahydroxybiphenyls, including those obtained as degradation products from the ergot pigments, ergoflavin and ergochrysin.

IT 2657-38-7P, 3,3'-Biphenyldicarboxaldehyde, 4,4',6,6'-tetrahydroxy-

2657-41-2P, 2,2',4,4'-Biphenyltetrol, 5,5'-dimethyl-

2811-45-2P, 3,3'-Biphenyldicarboxaldehyde, 4,4',6,6'-tetrahydroxy-

, tetraacetate

RL: PREP (Preparation)

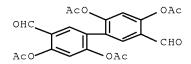
(preparation of)

RN 2657-38-7 CAPLUS

CN 3,3'-Biphenyldicarboxaldehyde, 4,4',6,6'-tetrahydro- (8CI) (CA INDEX NAME)

RN 2657-41-2 CAPLUS

CN [m,m'-Bitolyl]-4,4',6,6'-tetrol (8CI) (CA INDEX NAME)



L19 ANSWER 43 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1964:492144 CAPLUS Full-text

DOCUMENT NUMBER: 61:92144 61:16008a-h ORIGINAL REFERENCE NO.:

Formation of hydroxy aryl quinones by the addition of TITLE:

phenols to quinones

Musso, Hans; Gizycki, Ulrich v.; Zahorszky, Uwe I.; AUTHOR(S):

Bormann, Dieter

CORPORATE SOURCE: Univ. Marburg, Germany

SOURCE: Justus Liebigs Annalen der Chemie (1964), 676, 10-20

CODEN: JLACBF; ISSN: 0075-4617

DOCUMENT TYPE: Journal LANGUAGE: Unavailable CASREACT 61:92144 OTHER SOURCE(S):

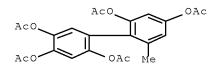
For diagram(s), see printed CA Issue.

AΒ Resorcinol derivs. add in alkaline solution to hydroxyquinones to yield the corresponding dihydroxyarylhydroquinones. PHOH reacts in acidic and alkaline solution with p-benzoquinone (I) to give o-(II) and phydroxyphenylbenzoquinone (III); in neutral solution phenoxyquinones are also formed. The condensation of hydroxy-p-xyloquinone (IV) with BF3 led to a dibenzofuranquinone, present in nonpolar solvents as diphenoquinone. m-C6H4(OH)2 (1 q.) in 25 cc. 0.2M phosphate buffer (pH 12) and 4 cc. 2N NaOH treated dropwise with stirring in air with 100 mg. 1,2,4-C6H3(OH)3 in 10 cc. H2O and acidified after 20 min. with dilute H2SO4, and the crude product chromatographed on silica gel yielded 38 mg. V (R = R1 = R2 = R3 = H) (VI), dark brown needles, blacken up to 320° without melting. Similarly were prepared the following V (R, R1, R2, R3, % yield, and m.p. given): Me, H, Me, H, 92.5, 182-7° (decomposition); Me, Me, Me, Me, 90, 224-5°; tert-Bu, H, tert-Bu, H, 39.5, 225-7° (orange needles) (AcOEtcyclohexane); H, H, Me, H, 28, 190- $200^{\circ}$  (decomposition); Me, H, H, H, 11,  $180-200^{\circ}$  (decomposition). VI (125 mg.) in 5 cc. Ac2O heated 0.5 hr. on the water bath with NaOAc and  ${\tt Zn}$  dust, and the product chromatographed on silica gel yielded 207 mg. 2,2',4,4',5pentaacetoxybiphenyl (VII), m. 123-4° (cyclohexane-C6H6). Similarly were prepared the following derivs. of VII (substituent, % yield, and m.p. given): 6'-Me, 68, 136-9°; 6-Me, 84, 133-4°. 6-Hydroxytoluhydroquinone (141 mg.) in 25 cc. 0.2M phosphate buffer (pH 12) stirred 1 hr. in air and acidified with dilute H2SO4, and the product chromatographed on silica gel yielded 91 mg. 4,4'-dihydroxy-2,2'- ditolyldiquinone, yellow needles, m. 207°. Similarly was prepared 4,4'-dihydroxy-3,3',6,6'-tetramethylbiphenyldiquinone, 68%, m. 208-10°. PhOH (5.64 g.) and 1.58 g. KOH in 20 cc. H2O treated with stirring with 0.648 g. I in 20 cc. H2O and acidified after 4 min. with dilute H2SO4, and the product chromatographed on silica gel yielded 5 mg. 5-PhO derivative (VIII) of  $2-(p-hydroxyphenoxy)-1,4-benzoquinone (IX), light yellow needles, m. <math>224-6^{\circ}$ , and 43 mg. III, m.  $177^{\circ}$  (C6H6-cyclohexane). PhOH (5.64 g.) in 35 cc. 20% H2SO4 and 7 cc. MeOH treated 0.5 hr. at 40° with 0.65 g. I yielded 103 mg. II, m.  $192-3^{\circ}$ , and 10 mg. III. I (3g.) and 18 g. PhOH in 850 cc. H2O and 150 cc. MeOH kept 20 days, and the crude product chromatographed on silica gel yielded

170 mg. yellow 2,5-diphenoxy-1,4-benzoquinone, m. 236-7° (cyclohexane), 95 mg. X, 220 mg. IX, 100 mg. VIII, yellow needles, m. 224-6° (AcOEt-cyclohexane), and 1.5 g. p-C6H4(OH)2. VIII (20 mg.) with 5 cc. Ac2O and 1 cc. C5H5N yielded 17 mg. acetate of VIII, yellow-green needles, m. 192-4° (C6H6). VIII (27 mg.) in 10 cc. Ac20 treated with 2 g. In dust yielded 22 mg. 2-(p-acetoxyphenoxy)-5-phenoxyhydroquinone diacetate, m. 102° (C6H6-cyclohexane). I (2 g.) in 200 cc. H2O and 25 cc. MeOH kept 9 days and acidified with dilute H2SO4 yielded 25 mg. IX, yellow needles, m.  $145-6^{\circ}$  (C6H6-cyclohexane). IX (216 mg.) and 2 g. PhOH in 150 cc. H2O and 25 cc. MeOH kept 13 days yielded 25 mg. VIII, yellow needles, m. 224-6° (AcOEt-cyclohexane). II (100 mg.) in 30 cc. dry Et20 treated 2 hrs. with 0.5 cc. Et20.BF3 yielded 80 mg. 1,4,5,8-tetramethyl-3,6dihydroxydibenzofuran-2,7-quinone (XI), black-blue needles, decompose slowly above  $300^{\circ}$  without melting up to  $350^{\circ}$  (AcOEt). II (150 mg.) in 15 cc. AcOH treated 4 hrs. at room temperature with 0.5 cc. concentrated H2SO4 gave 102 mg. XI. XI (100 mg.) and a small amount NaOAc in 5 cc. Ac2O heated with the portionwise addition of 3 g. In dust until the mixture was colorless gave 116 mg. 1, 4, 5, 8-tetramethyl-2, 3, 6, 7-tetraacetoxydibenzofuran (XII), needles, <math>m.275-6° (C6H6). 2,7-Dihydroxy-4,5-dimethyldibenzofuran (30 mg.) in 10 cc. Ac20 and 1 cc. C5H5N heated 15 min. on the water bath, and the crude product chromatographed on silica gel yielded 34 mg. diacetate, needles, m.  $181-2^{\circ}$ (C6H6-cyclohexane). XI (100 mg.) in 100 cc. Me2CO and 5 cc. 2N HCl shaken with Zn dust until colorless gave 30 mg. 2,3,6,7-tetra-OH analog (XIII) of XII, needles, m.  $285-300^{\circ}$  (decomposition). The ultraviolet spectra of XI and XIII are recorded.

RN 107893-61-8 CAPLUS

CN 2,2',4,4',5-Biphenylpentol, 6'-methyl-, pentaacetate (7CI) (CA INDEX NAME)



L19 ANSWER 44 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1964:2878 CAPLUS Full-text

DOCUMENT NUMBER: 60:2878
ORIGINAL REFERENCE NO.: 60:440b-c

TITLE: Thiele acetylation of 2-phenyl-1,4-benzoquinone and

its 5 methoxy derivative

AUTHOR(S): Blatchly, J. M.; McOmie, J. F. W.

CORPORATE SOURCE: Univ. Bristol, UK

SOURCE: Journal of the Chemical Society (1963), (Nov.),

5311-13

CODEN: JCSOA9; ISSN: 0368-1769

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

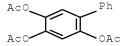
GI For diagram(s), see printed CA Issue.

AB The products from Thiele acetylation of 2-phenyl-1,4-benzoquinone (I) and its 5-methoxy derivative have been shown to be 2,4,5-triacetoxybiphenyl (II) and 2,3,6-triacetoxy-4-methoxy biphenyl, resp. Three other similar quinones did not undergo Thiele acetylation.

IT 18477-16-2P, 2,4,5-Biphenyltriol, triacetate

RL: PREP (Preparation)
(preparation of)
18477-16-2 CAPLUS

CN 2,4,5-Biphenyltriol, triacetate (8CI) (CA INDEX NAME)



RN

L19 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1964:2877 CAPLUS Full-text

DOCUMENT NUMBER: 60:2877

ORIGINAL REFERENCE NO.: 60:439g-h,440a-b

TITLE: Alkylaminomethylhydroquinones and related compounds AUTHOR(S): Weatherbee, Carl; Lau, Howard K. S.; Snell, Robert;

Goken, Garold; Van Lear, George

CORPORATE SOURCE: Millikin Univ., Decatur

SOURCE: Transactions of the Illinois State Academy of Science

(1963), 56(1), 12-18

CODEN: TISAAH; ISSN: 0019-2252

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

cf. CA 56, 15504d. Condensation of PhCH2NH2 (I) and (PhCH2)2NH (II) with CH2O AΒ (III) in the presence of p-benzyloxyphenol (IV) and hydroquinone (V) was studied. To 30.6 ml. 40% III in PrOH and 50 ml. dioxane was added with stirring during 3-4 min. at  $10-15^{\circ}$  22 ml. I, followed by 40 g. IV and 25 ml. dioxane. After being stirred until homogeneous, refluxed 2 hrs., allowed to stand 22 hrs. at 25°, and evaporated, the mixture gave a solid which was dissolved in 300 ml. Et20 and 150 ml. H2O containing 11 g. NaOH. The Et20 layer gave 57 g. crude 3,4-dihydro-3-benzyl-6-benzyloxy- 2H1,3-benzoxazine (VI), m. 86-7° (2:5 MeOH-EtOH). Similarly, 2-benzylaminomethyl-4hydroxyphenol (VII) was converted in 91.5% yield to 3,4-dihydro-3-benzyl-6hydroxy-2H-1,3-benzoxazine, m.  $105-6^{\circ}$  (CCl4). A solution of 3.6 g. VI and 3 ml. concentrated HCl in 25 ml. EtOH was distilled until 15 ml. EtOH (and III) was removed, and the residue was cooled and treated with 20 ml. acetone to give 3.4 g. 2-benzylaminomethyl-4- benzyloxyphenolHCl (VIII), m. 170-1° (EtOH). A stirred mixture of 4.95 g. VIII and 1.5 ml. HOCH2CH2NH2 in 150 ml. H2O was extracted with Et2O to give 4.16 g. 2-benzylaminomethyl-4benzyloxyphenol (IX), m. 90-1° (MeOH). To a solution of 6.39 g. IX in 100 ml. MeOH was added to  $0^{\circ}$  1.5 ml. 37% aqueous III, and the mixture refluxed 2 hrs. to give 5.3 g. VI. Refluxing 30 min. a mixture of 8.8 g. IX and 15 ml. concentrated HCl gave 5.1 g. 2-benzylaminomethylhydroquinoneHCl (X), m. 177-8° (iso-PrOH). IV was similarly cleaved to V. An aqueous solution of X was saturated with KHCO3 and extracted with Et2O to give VII, m.  $120-20.5^{\circ}$  (C6H6). Attempted condensations of II, III, and either IV or V under a variety of conditions led to 96100% tetrabenzyldiaminomethane (XI). XI did not react further with III and IV. Neither I nor I.HCl would react with III and V.

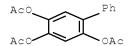
IT 18477-16-2P, 2,4,5-Biphenyltriol, triacetate

RL: PREP (Preparation)

(preparation of)

RN 18477-16-2 CAPLUS

CN 2,4,5-Biphenyltriol, triacetate (8CI) (CA INDEX NAME)



L19 ANSWER 46 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:15521 CAPLUS

DOCUMENT NUMBER: 56:15521
ORIGINAL REFERENCE NO.: 56:2914a-b

TITLE: Hardening of gelatin films, especially photographic

emulsions

INVENTOR(S): Joachim Birr, Emil; Walther, Werner

PATENT ASSIGNEE(S): VEB Filmfabrik Agfa Wolfen

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

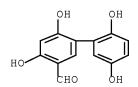
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1112282		19610803	DE 1959-V15860	19590130
PRIORITY APPLN. INFO.:			DE	19590130

AB Small amts. of compds. containing 2 hydroxylated phenyl moieties speed the hardening of photographic emulsions. These compds. include 2,2',4,5'-tetrahydroxybiphenyl (I); 2',3,4,5'-tetrahydroxybiphenyl (from pyrocatechol and quinone); 3,3',4,4'-tetrahydroxydiphenylmethane (from pyrocatechol and acetone in the presence of HCl, m. 284-6°); 3,3',4,4'-tetrahydroxy5,5'-disulfodiphenylmethane; 3,3',4,4'-tetrahydroxydiphenylmethanol; 2,2',4,5'-tetrahydroxy-5'-formylbiphenyl (from I and Zn(CN)2 in the presence of HCl followed by treating the imide hydrochloride with H2SO4, m. 172°); 2',3,4,5'tetrahydroxy-5- formylbiphenyl; and 2,2',4,4'-tetrahydroxydiphenyl sulfone, from H2O2 oxidation of the sulfide.

IT 92379-40-3, 3-Biphenylcarboxaldehyde, 2',4,5',6-tetrahydroxy-(photographic-emulsion hardening by)

RN 92379-40-3 CAPLUS

CN  $\beta$ -Resorcylaldehyde, 5-(2,5-dihydroxyphenyl)- (7CI) (CA INDEX NAME)



L19 ANSWER 47 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:5953 CAPLUS

DOCUMENT NUMBER: 56:5953
ORIGINAL REFERENCE NO.: 56:1093d-f

TITLE: Hardeners for photographic emulsions INVENTOR(S): Birr, Emil Joachim; Walther, Werner

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

PATENT NO. KIND DATE APPLICATION NO. DATE

DD 20032 19590113 DD

AΒ Hardening accelerators are described, e.g. polyphenols, which intensify and speed up the hardening of gelatin photographic emulsions (by using diacetyl as hardener) and prevent posthardening. Fusing 22 g. pyrocatechol (I) with 21.6 q. quinone, heating is for 30 min., and extracting with C6H6 gives 2',3,4,5'tetrahydroxybiphenyl (II). The 2,2',4,5'isomer (III) of II, 109 g., prepared from resorcinol and quinone, in 600 ml. ether is treated with 88 g. anhydrous Zn(CN)2, cooled, stirred, and saturated with HCl gas. The ether is decanted from the imido chloride formed and the latter decomposed with 10% aqueous H2SO4 to give the 5-formyl derivative of III, m. 172°. Refluxing 29 g. I in 7.2 acetone and 20 ml. concentrated HCl for 6 hrs. and washing the product with hot water gives 2,2-bis(3,4- dihydroxyphenyl)propane (IV), m. 284-6°. A similar treatment of pyrocatecholsulfonic acid or sulfonation of IV with aminosulfonic acid yields the 5-sulfo derivative Tests are reported with 1-1. portions of an NH3-AgBr plus AgClgelatin emulsion by using 0.33 or 0.66 g. diacetyl and 0.13 g. accelerator to effect hardening.

IT 92379-40-3, 3-Biphenylcarboxaldehyde, 2',4,5',6-tetrahydroxy-(photographic-emulsion hardening by)

RN 92379-40-3 CAPLUS

CN  $\beta$ -Resorcylaldehyde, 5-(2,5-dihydroxyphenyl)- (7CI) (CA INDEX NAME)

L19 ANSWER 48 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1956:27751 CAPLUS Full-text

DOCUMENT NUMBER: 50:27751

ORIGINAL REFERENCE NO.: 50:5559g-i,5560a

TITLE: Antiseptics for foods. LVIII

AUTHOR(S): Fujikawa, Fukujiro; Tokuoka, Akimasa; Nishimoto,

Masaharu; Miura, Kazuko

CORPORATE SOURCE: Kyoto Coll. Pharm.

SOURCE: Yakugaku Zasshi (1955), 75, 600-2 CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

AB cf. C.A. 49, l1596i. 4,1,3-C6H11C6H3(OMe)2 (2.2 g.) in 50 ml. Et2O and 3 g. iodine treated with 1.5 g. HgO with shaking 7 hrs., filtered, the filtrate washed with 7% NaHSO3, 20% KI, and 5% KOH, the Et2O removed, and the residue recrystd. from ligroine gives 6,4,1,3-I(C6H11)C6H2(OMe)2 (I), columns, m. 133°; 9 g. I and 22.5 g. Cu powder in a sealed tube heated several hrs. at 210-20°, and the product extracted with Me2CO and recrystd. from ligroine gives [3,4,6-C6H11(MeO)2C6H2]2 (II), columns, m. 146°; 1 g. II, 20 ml. AcOH and 10 ml. HI boiled and the product recrystd. from dilute EtOH give [3,4,6-C6H11(HO)2C6H2]2, columns, m. 267°. 3,2,4,5-C1(HO)2(iso-Am)C6HCHO (?g.), 43 ml. concentrated HCl, 40 ml. water, 30 ml. PhMe and 30 g. Zn-Hg heated 5 hrs. on an oil bath, the PhMe removed, the residue extracted with Et2O, the extract

washed with 10% NaOH, the Et2O removed, and the residue recrystd. from dilute EtOH give 2,6,4,1,3-ClMe(iso-Am)C6H(OH)2, columns, m.  $102^{\circ}$ . Similarly, 3,5,2,4-Cl[Me(CH2)5](HO)2C6HCHO gives 2,6,4,1,3-ClMe(C6H13)C6H(OH)2, columns, m.  $73^{\circ}$ . Me agaricate (0.4 g.) in 5 ml. EtOH heated 5 min. on a water bath with 0.45 g. N2H4.H2O and the product recrystd. from EtOH gives agaricic acid trihydrazide, m.  $170^{\circ}$  (decomposition). The above compds. and quinoxaline, pyrazinecarboxylic acid (III), 2,3-pyrazinedicarboxylic acid (IV), nicotinic acid (V), and the corresponding Me esters and acid hydrazides of III, IV, and V were tested for mold-preventing action on soy sauce but none of them showed any marked action up to a concentration of 0.01%.

IT 873996-64-6P, 2,2',4,4'-Biphenyltetrol, 5,5'-dicyclohexyl-

RL: PREP (Preparation)

(preparation of)

RN 873996-64-6 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 5,5'-dicyclohexyl- (CA INDEX NAME)

L19 ANSWER 49 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1954:1175 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 48:1175

ORIGINAL REFERENCE NO.: 48:229f-i,230a

TITLE: Antibacterial activity of some organic compounds in

vitro. II. Antibacterial activity of some organic compounds on Micrococcus pyogenes var. aureus, Escherichia coli communior, and Bacillus subtilis

AUTHOR(S): Fujikawa, Fukujiro; Hitosa, Yuhei; Yamaoka, Michiyo;

Fujiwara, Yoshiko; Nakazawa, Shozo; Omatsu, Tokugoro;

Toyoda, Tadaaki

SOURCE: Yakugaku Zasshi (1953), 73, 135-8

CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

The growth-inhibitory action of the following compds. was tested on M. AΒ pyogenes var. aureus, E. coli communior, and B. subtilis, in the order named, and the effective dilns. (10,000 dilution = 1) were: (2-HOC6H4)20, 1, 1, and<1; 2-HOC6H4OC6H4OH-4, 1, 1, and <math><1; (4-HOC6H4)2O, 1, 1, and 1; 2-HOC6H4)2OHOC6H4OC6H4Me-2, 2, 2, and 1; 2-HOC6H4OC6H4Me-4, 4, 1, and 1; 3-MeC6H4OC6H3(OH)2-2, 5, 4, 1, and 2; 2,5-(HO)2C6H3OC6H4Me-4, 2, 1, and 2; 2,5-Me2C6H3OC6H4OH-4, 8, <1, and 2; 2,4,6-Me(HO)2C6H2OC6H4Me-4, 1, <1, and <1; 2,5,3-Me2(HO)C6H2OPh, 2, 1, and 8; 2,5,3-Me2(HO)C6H2OC6H4OH-2, 1, 1, and 1; 2,5,4,6-Me2(HO)2C6HOC6H4Me-2, 2, 1, and 2; 2,5,4,6-Me2(HO)2C6HOC6H4Me-3, 1,<1, and 1; 2,5,4,6-Me2(HO)2C6HOC6H4Me-4, 1, <1, and 1; 2-HO2CC6H4OPh, 1, 1, and <1; 3-H02CC6H4OPh, all <1; 2-H0C6H4OC6H4CO2H-2, all <1; 3-H0C6H4OC6H4CO2H-3, 1, 1, and <1; 3-HO2CC6H4OC6H4OH-4, all <1; 3-HO2CC6H4OC6H4OMe-4, all <1; PhOC6H3(OH)CO2H-3,5, all <1; 2-HO2CC6H4CO2H-4, all <1; 3,5-HO(HO2C)C6H3OC6H4CO2H-4, all <1; 4-ClC6H4OC6H4OMe-4, all 1; 4-ClC6H4OC6H4OH-4, all 1; (2-HOC6H4)2, all 1; [2,4-(HO)2C6H3]2, 1, 1, and <1; [2,4,6-Me(MeO)2C6H2]2, all <1; [2,4,6-Me(HO)2C6H2]2, 2, 1, and <1; [2,4,5- $(HO) \ 2RC6H2] \ 2$ , R = cyclohexyl, 1, <1, and 1;  $(4-HO2CC6H4) \ 2$ , all <1;  $[2,5,4,6-HO2CC6H4] \ 3$ Me2(HO)2C6H]2, all <1; 2,7-dimethoxy-4,5-dimethyldiphenylene oxide, all <8; 2,7-dihydroxy-4,5-dimethyldiphenylene oxide, <8, <8, and 16; 2,7-

dihydroxydiphenylene oxide 4,5-dicarboxylic acid, all <8; the Me ester of the latter, all <8; divaricatic acid, 2, <1, and 16; atranorin, <1, 1, and <1; sekikaic acid, 1, <1, and 4; sphaerophorin, 1, <1, and 16; gyophoric acid, all <8; anziaic acid, all 8; microphyllic acid, all 8; Me lecanorate, all <1; protocetraric acid, all 8;  $\alpha$ -collatolic acid, all 8;  $\beta$ -collatolic acid, <8, 8, and <8; collatolon, 16, 8, and <8; stictinic acid, <8, 8, and <8; psoromic acid, all <1; usnolic acid, all <1; Et usnolate, 2, 4, and 4; usnetol, all <1; rangiformic acid, 8, 8, and <8; 1-protolichesterinic acid, 8, <1 and 1; agaricinic acid, 1, 1, and <1; sphaerophorol, 8, 1, and 8.

ΙT 873996-64-6, 2,2',4,4'-Biphenyltetrol, 5,5'-dicyclohexyl-

(as bactericide)

873996-64-6 CAPLUS RN

[1,1'-Biphenyl]-2,2',4,4'-tetrol, 5,5'-dicyclohexyl- (CA INDEX NAME) CN

L19 ANSWER 50 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1953:34889 CAPLUS Full-text

DOCUMENT NUMBER: 47:34889 ORIGINAL REFERENCE NO.: 47:5917a-c

TITLE: Inhibition of hyaluronidase by gentisic acid and its

oxidation products

AUTHOR(S): Forrest, J.; Overell, B. G.; Petrow, V.; Stephenson,

CORPORATE SOURCE: Brit. Drug Houses, Ltd., London

SOURCE: Journal of Pharmacy and Pharmacology (1952), 4, 231-42

CODEN: JPPMAB; ISSN: 0022-3573

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

AΒ cf. Roseman, et al., Federation Proc. 8, 245(1949). Oxidation of C6H4(OH)CO2H with (NH4)2S2O8, extraction, and purification yields compound A as an amorphous black solid (C6H4O3), m. about 240° (decomposition), which inhibits the action of hyaluronidase (I) on hyaluronic acid. Aerial oxidation of Me gentisate with p-quinone in alkaline solution gave, on addition of HCl, compound B as a black infusible solid which inhibited I. Compound C was obtained from pyrocatechol. C6H3(OAc)3 hydrolyzed with 10% H2SO4 then mixed with a p-quinone suspension in 10% H2SO4 gave 2,2',4,4',5,5'hexahydroxybiphenyl, C12H10O6, a light blue-gray solid, m. 277-80°. Alkaline aeration of nitrohydroquinone yields, from AcOEt-light petr., small bright red needles of 2,2',5,5'-tetrahydroxy-3,3'-dinitrophenyl, C12H8O8N2 m. 240° (decomposition); tetra-AcO analog, m. 191°. 2,2',3,3'-Tetrahydroxy-5,5'dinitrobiphenyl, from nitropyrocatechol, forms brown microcrystals, m. above 300° (decomposition); tetraacetate, m. 170°. Other compds. aerated alone or with hydroquinone or p-quinone in alkaline media yielded dark products that showed inhibitory action. Comparison of the inhibiting products with humic acid from soil and peat indicate that the oxidation products are of the humic acid type. The natural humic acids are also inhibitors of the action of I. 76625-61-1, 2,2',4,4',5,5'-Biphenylhexol ΤT

(and inhibiting action on hyaluronidase)

76625-61-1 CAPLUS RN

[1,1'-Biphenyl]-2,2',4,4',5,5'-hexol (CA INDEX NAME) CN

L19 ANSWER 51 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1943:552 CAPLUS Full-text

DOCUMENT NUMBER: 37:552

ORIGINAL REFERENCE NO.: 37:109h-i,110a-d

TITLE: The action of diazo compounds on quinones. The

preparation of some derivatives of biphenyl

AUTHOR(S): Marini-Bettolo, G. B.

SOURCE: Gazzetta Chimica Italiana (1941), 71, 627-35

CODEN: GCITA9; ISSN: 0016-5603

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

AΒ Condensation of diazotized m- and p-O2NC6H4NH2 (I and II) with quinone (III) forms the corresponding nitrophenyl-quinones. Some reduction products and derivs. of these are described. II (14 g.), diazotized, and condensed with 10.8 g. III in the presence of 30 g. NaOAc, first at 0°, then at room temperature, and the product purified by AcOH, yields p-nitrophenylquinone (IV), brown, m. 135°. IV (1 g.) and SO2 in boiling water form 4-nitro-3',6'-dihydroxybiphenyl (V), orange-yellow, m. 195°. Alc. V, 8 mols. Me2SO4 and 33% aqueous KOH yield, after purification of the product from EtOH, 4nitrodimethoxybiphenyl (VI), yellow, m.  $104^{\circ}$ . V, Ac20 and NaOAc yield, after purification of the product from dilute EtOH, 4-nitro-3',6'-diacetoxybiphenyl, m. 145°. VI (2 g.) and Sn in concentrated HCl yield, after purification of the product from dilute EtOH, 4-amino-3',6'-dimethoxybiphenyl, m. 145°. HCl salt (VII), m. 225°. Picrate, m. 184°. Azo dye from resorcinol (VIII), bloodred (from dilute EtOH), m. 105°. VII (1 g.) in 0.1 N HCl and aqueous NaNO2 (0.3 g. in 10 cc.) below 5° yields, after destruction of the excess HNO2 by urea, heating 15 min. on a water bath, and purification of the product by water, 4-hydroxy-3',6'-dimethoxybiphenyl, m. 158°. IV (1 g.) in 10 cc. Ac20 and 0.1 cc. concentrated H2SO4 yield 4-nitro-3',4',6'-triacetoxybiphenyl (IX), m. 130°. Diazotization of I and condensation with III yields, after purification by EtOH, m-nitrophenylquinone (X), m. 104°. Reduction of X by SO2 and purification of the product by water yield 3-nitro-3',6'dihydroxybiphenyl (XI), bright yellow, m. 83°. Methylation of XI and purification by 60% EtOH yield 3-nitro-3',6'-dimethoxybiphenyl (XII), lemonyellow, m. 84°. Acetylation of X yields 3-nitro-3',6'-diacetoxybiphenyl, m. 100°. Reduction of XII by Sn and HCl yields 3-amino-3',6'-dimethoxybiphenyl, decomps. in air. HCl salt, m. 190°. Azo dye from VIII, m. 96°. Prepared like IX, 3-nitro-3',4',6'-triacetoxybiphenyl m. approx. 60°. Diazotization of 2 g. sulfanilamide by 1.5 g. KNO2 and 10 cc. dilute HCl, decomposition of the product by 6 g. NaOAc, condensation with alc. III (1.8 g. in 30 cc.), and purification of the product by dilute EtOH, yield p-sulfamylphenylquinone, brown, m. 204°.

IT 80632-65-1P, 2,4,5-Biphenyltriol, 4'-nitro-, triacetate 855253-94-0P, 2,4,5-Biphenyltriol, 3'-nitro-, triacetate RL: PREP (Preparation)

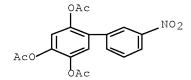
(preparation of)

RN 80632-65-1 CAPLUS

CN [1,1'-Biphenyl]-2,4,5-triol, 4'-nitro-, triacetate (ester) (9CI) (CA INDEX NAME)

RN 855253-94-0 CAPLUS

CN [1,1'-Biphenyl]-2,4,5-triol, 3'-nitro-, 2,4,5-triacetate (CA INDEX NAME)



L19 ANSWER 52 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1934:11102 CAPLUS Full-text

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TITLE: Formation of complex oxidation and condensation

products of phenols-origin and nature of humic acid.

II. Coupling of simple phenols and quinones to

biphenyl derivatives

AUTHOR(S): Erdtman, H. G. H.

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Pyrogallol shaken with baryta solution for 5 min. gives 2,3,4,2',3',4'-AB hexahydroxybiphenyl (I), m.  $310-20^{\circ}$  (decomposition); hexacetate, m.  $163-4^{\circ}$ , hexa-Me ether, m. 123°. Bipyrogallol hexa-Me ether brominated in CHC13 gives a dibromohexamethyl ether, m.  $110-1^{\circ}$ . Pyrogallol tri-Me ether with I and HgO gives 72% of 4-iodopyrogallol tri-Me ether (II), m.  $40-2^{\circ}$ . Heated with Cu powder, II yields 2,3,4,2',3',4'-hexamethoxybiphenyl, m. 110-1°. Electrolytic oxidation of pyrogallol gave neg. results. Electrolysis of pyrogallol tri-Me ether in Me2CO and 2 N H2SO4 gives 2,6-dimethoxybiquinone, m. 255°; diacetate, m. 133°. Methoxyquinone and methoxyquinol in C6H6 gives on evaporation methoxyquinhydrone (III), m. 97°. Thermal decomposition of III yields a coupled product which on oxidation yields 4,4'-dimethoxybiquinone (IV), m.  $212-14^{\circ}$  . In Ac2O and H2SO4 IV gives 2(?),3,6,-2'(?),3',6'-hexaacetoxy-4,4'dimethoxybiphenyl. HCl (2 mols) adds to IV, giving a chlorophenol which on boiling with Ac20 gives an anhydride (?), m.  $253^{\circ}$ . HI and PhNHNH2 reduce IV to 4,4'-dimethoxybiquinol (V), m. 210°; tetraacetate (VI), m. 186-7°. Hydrolysis and subsequent methylation of VI yields 2,4,5,2',4',5'hexamethoxybiphenyl (VII), m. 177-9°. VI, refluxed with HBr, gives 2,3,6,7tetraacetoxybiphenylene oxide (VIII), m. 262°. Hydrolysis of VIII yields 2,4,5,2',4',5'- hexaacetoxybiphenyl, m. 172-4°. Hydroxyquinol tri-Me ether and ICl, or H2Cr2O7 solution yields VII. Anodic oxidation of the same ether

in strongly or weakly acid solution also gives VII. Dehydrovanillin with H2O2 in acetylating solution forms 3,3'-dimethoxybiquinol (tetraacetate) (VIII), m. 176-8°. Bromination of VIII in AcOH gives 6,6'-dibromo-3,3'dimethoxybiquinol tetraacetate, m. 207-8°. Hydrolysis of VIII results in 2,3,5,2',3',5'-hexamethoxybiphenyl (IX), m. 119-20°. Bromination of IX in CHCl3 gives the 6,6'-di-Br derivative (X), m. 271-2°. 6,6'-Dinitro derivative of IX, m. 300-1°. Nitration of X yields 6,6'-dibromo-3,3'-dimethoxybiquinone, m.  $240-2^{\circ}$  (decomposition). Toluquinol di-Me ether (XI), nitrated, gives the 5-nitro derivative, m. 117-8°. 5-I derivative m. 85°. With C5H5N, Ac2O and Zn dust, 4,4'-ditoluquinone gives tetraacetoxybitolyl, m. 137°, hydrolyzed and methylated to give 2,5,2',5'-tetramethoxy-4,4'dimethylbiphenyl, m. 135-6°. Reduction of Nietzki's quinone with SO2 gives 2,2'-diethoxy-5,5'-dimethoxy-4,4'- dimethylbiphenyl, m. 116-8°. Methylation of Noelting's reduced quinone gives 2,2'-dimethoxy-5,5'-diethoxy-4,4'dimethylbiphenyl, m.  $94-6^{\circ}$ . Bitoluquinone with Ac2O and H2SO4 yields 2(?),3,6,2'(?),3',6'-hexaacetoxy- 4,4'-dimethylbiphenyl, m. 202-3°. Reduction of nitroquinol dibenzyl ether gives the amino derivative (XII), m. 100-2°; Ac derivative, m.  $86-7^{\circ}$ . Fusion of XII and p-NO2C6H4CHO yields the pnitrobenzylidene derivative; m. 105°. The following derivs. of 2-iodo-4nitroaniline were prepared: p-nitrobenzylidene, m. 194-6°, m-nitrobenzylidine, m. 177-8°.

RN 7461-76-9 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4',5,5'-hexol, hexaacetate (9CI) (CA INDEX NAME)

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